

**TOSHIBA**

FILE NO. 020-200321

**SERVICE MANUAL**

# **COLOR TELEVISION**

**N3PSP Chassis**

***51HX93, 57HX93***

*(TAC0364)*

*(TAC0365)*

***65HX93***

*(TAC0366)*

## TABLE OF CONTENTS

### CHAPTER 1 GENERAL ADJUSTMENTS

|                                             |    |
|---------------------------------------------|----|
| SAFETY INSTRUCTIONS .....                   | 3  |
| CRT ASSEMBLY REPLACEMENT AND MOUNTING ..... | 4  |
| PICTURE TUBE COMPONENTS ADJUSTMENT .....    | 6  |
| REPLACEMENT OF THE CRT .....                | 9  |
| SERVICE MODE .....                          | 10 |
| ELECTRICAL ADJUSTMENT .....                 | 12 |
| CONVERGENCE ADJUSTMENT .....                | 13 |
| SCREEN AND MIRROR ALIGNMENTS .....          | 16 |
| CIRCUIT CHECKS .....                        | 17 |

### CHAPTER 2 SPECIFIC INFORMATIONS

|                                                         |     |
|---------------------------------------------------------|-----|
| SETTING & ADJUSTING DATA .....                          | 18  |
| LOCATION OF CONTROLS .....                              | 19  |
| PROGRAMMING CHANNELS INTO THE TV'S CHANNEL MEMORY ..... | 21  |
| MECHANICAL DISASSEMBLY .....                            | 23  |
| CHASSIS REPLACEMENT PARTS LIST .....                    | 27  |
| PC BOARDS BOTTOM VIEW .....                             | 53  |
| TERMINAL VIEW OF TRANSISTORS .....                      | 66  |
| CIRCUIT BLOCK DIAGRAM .....                             | 69  |
| SPECIFICATIONS .....                                    | END |

#### APPENDIX:

#### CIRCUIT DIAGRAM

## CHAPTER 1 GENERAL ADJUSTMENTS

### SAFETY INSTRUCTIONS

**WARNING:** BEFORE SERVICING THIS CHASSIS, READ THE "X-RAY RADIATION PRECAUTION", "SAFETY PRECAUTION" AND "PRODUCT SAFETY NOTICE" INSTRUCTIONS BELOW.

#### X-RAY RADIATION PRECAUTION

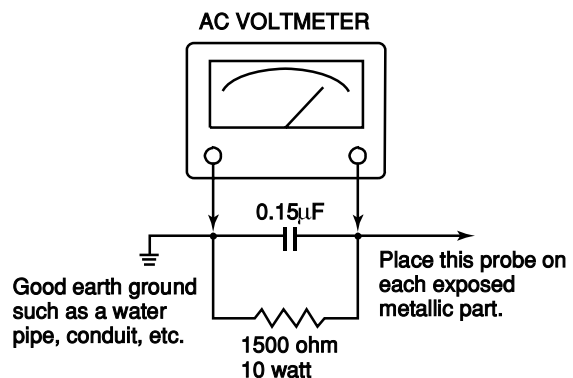
1. Excessive high voltage can produce potentially hazardous X-RAY RADIATION. To avoid such hazards, the high voltage must not be above the specified limit. The nominal value of the high voltage of this receiver is (A) kV at zero beam current (minimum brightness) under a 120V AC power source. The high voltage must not, under any circumstances, exceed (B) kV.  
**Refer to table-1 for high voltage (A), (B).  
(See SETTING & ADJUSTING DATA on page 18)**  
Each time a receiver requires servicing, the high voltage should be checked following the HIGH VOLTAGE CHECK procedure in this manual. It is recommended that the reading of the high voltage be recorded as a part of the service record. It is important to use an accurate and reliable high voltage meter.
2. This receiver is equipped with a Fail Safe (FS) circuit which prevents the receiver from producing an excessively high voltage even if the B+ voltage increases abnormally. Each time the receiver is serviced, the FS circuit must be checked to determine that the circuit is properly functioning, following the FS CIRCUIT CHECK procedure in this manual.
3. The only source of X-RAY RADIATION in this TV receiver is the picture tube. For continued X-RAY RADIATION protection, the replacement tube must be exactly the same type tube as specified in the parts list.
4. Some part in this receiver have special safety-related characteristics for X-RAY RADIATION protection. For continued safety, parts replacement should be undertaken only after referring to the PRODUCT SAFETY NOTICE below.

#### SAFETY PRECAUTION

**WARNING :** Service should not be attempted by anyone unfamiliar with the necessary precautions on this receiver. The following are the necessary precautions to be observed before servicing this chassis.

1. An isolation Transformer should be connected in the power line between the receiver and the AC line before any service is performed on the receiver.
2. Always discharge the picture tube anode to the CRT conductive coating before handling the picture tube. The picture tube is highly evacuated and if broken, glass fragments will be violently expelled. Use shatter proof goggles and keep picture tube away from the unprotected body while handling.
3. When replacing a chassis in the cabinet, always be certain that all the protective devices are put back in place, such as; non-metallic control knobs, insulating covers, shields, isolation resistor-capacitor network etc.
4. Before returning the set to the customer, always perform an AC leakage current check on the exposed metallic parts of the cabinet, such as antennas, terminals, screwheads, metal overlays, control shafts etc. to be sure the set is safe to operate without danger of electrical shock. Plug the AC line cord directly into a 120V AC outlet (do not use a line isolation transformer during this check). Use an AC voltmeter having 5000 ohms per volt or more sensitivity in the following manner:

Connect a 1500 ohm 10 watt resistor, paralleled by a 0.15  $\mu$ F, AC type capacitor, between a known good earth ground (water pipe, conduit, etc.) and the exposed metallic parts, one at a time. Measure the AC voltage across the combination of 1500 ohm resistor and 0.15  $\mu$ F capacitor. Reverse the AC plug at the AC outlet and repeat AC voltage measurements for each exposed metallic part. Voltage measured must not exceed 0.675 volts rms. This corresponds to 0.45 milliamp. AC. Any value exceeding this limit constitutes a potential shock hazard and must be corrected immediately.



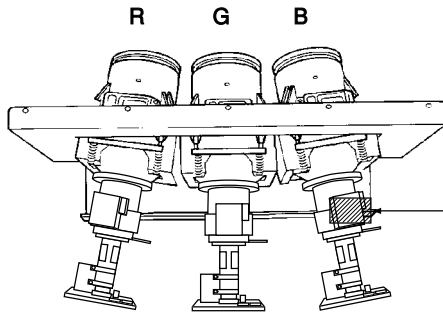
#### PRODUCT SAFETY NOTICE

Many electrical and mechanical parts in this chassis have special safety-related characteristics. These characteristics are often passed unnoticed by a visual inspection and the protection afforded by them cannot necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in this manual and its supplements; electrical components having such features are identified by the international hazard symbols on the schematic diagram and the parts list.

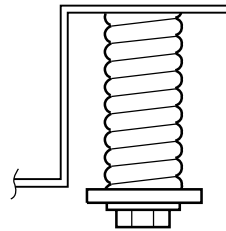
Before replacing any of these components, read the parts list in this manual carefully. The use of substitute replacement parts which do not have the same safety characteristics as specified in the parts list may create shock, fire, X-ray radiation or other hazards.

## CRT ASSEMBLY REPLACEMENT AND MOUNTING

**CAUTION : DO NOT LOOSEN THE HEX HEAD BOLTS WITH SPRINGS (12 PCS), BECAUSE THOSE ARE FOR SEALING OF CRT COOLANT.**

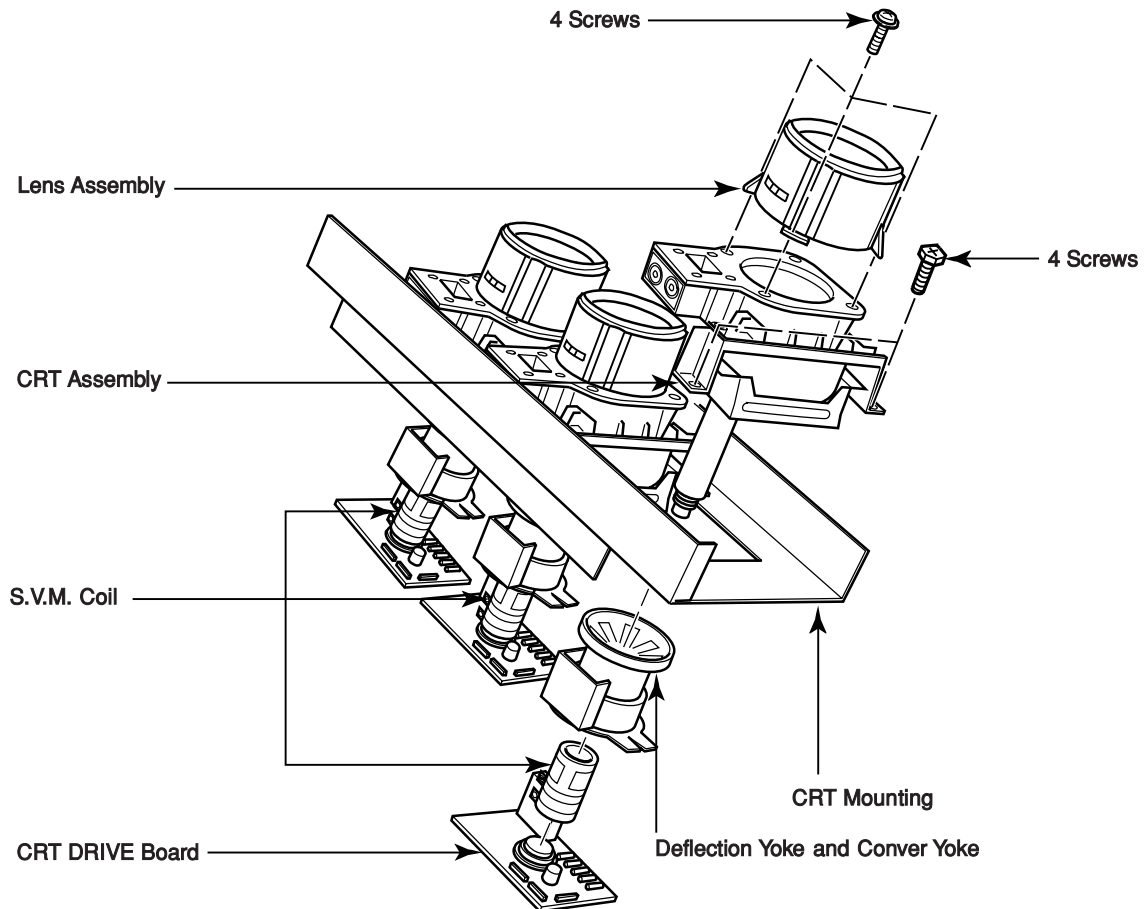


### Attention Serviceman



The Hex Head Bolts with Springs. (see sketch) used on CRT assembly, are NOT

Adjustment Screws  
**DO NOT LOOSEN-FLUID LEAKAGE WILL OCCUR.**



**Lens and Neck Components View**

**TO REMOVE CRT (Same procedure for R, G, B)**

1. Remove CRT DRIVE Board, S. V. M. COIL and DEF. YOKE from CRT.
2. Remove Lens Assembly.
3. Detach CRT Anode Cap from CRT.
4. Remove CRT Assembly from CRT Mounting.

**CRT REPLACEMENT (Same procedure for R, G, B)**

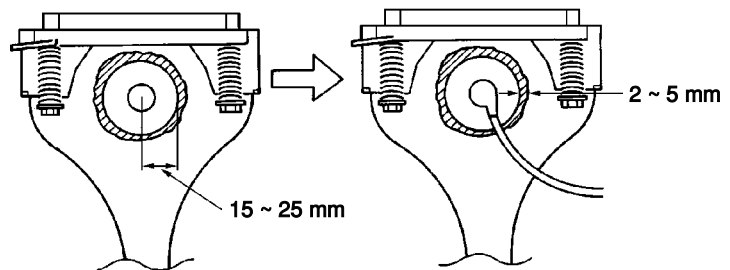
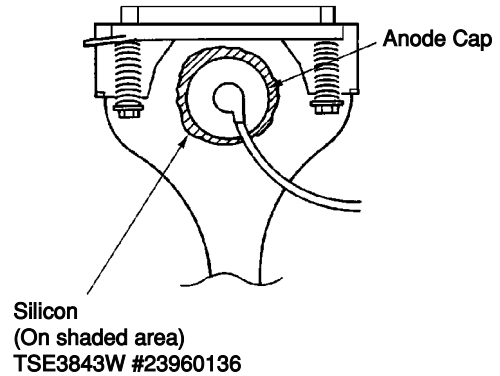
Reverse the removal procedures except the followings.

1. Anode Cable should be replaced with new one.  
See "SERVICING PRECAUTIONS" shown below.
2. Install silicon (T461B) to the CRT, replace the Anode cable and put enough silicon again on around the Anode Cap as illustrated.

**CAUTION:** Align the Anode cable as illustrated on page 4.

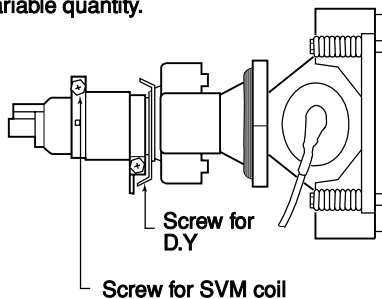
**ADJUSTING PROCEDURE IN REPLACING CRT**

1. R.G.B. FOCUS ADJUSTMENT (page 7.)
  2. PICTURE TILT ADJUSTMENT (page 7.)
  3. USER CONVERGENCE CENTER CHECK  
(See owner's manual.)
  4. CENTERING ADJUSTMENT (page 7.)
  5. CONVERGENCE ADJUSTMENT (page 13.)
  6. WHITE BALANCE ADJUSTMENT (page 12.)
- Adjustments are complete.

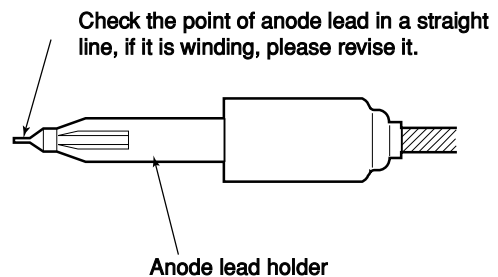


**SERVICING PRECAUTIONS**

- Do not use a magnetized screw driver for screws of Deflection Yoke and Velocity Modulation Coil to avoid magnetization of electron gun. Magnetization of electron gun will degrade basic function and result in unbalance of right and left shift of user static convergence, and result in no variable quantity.



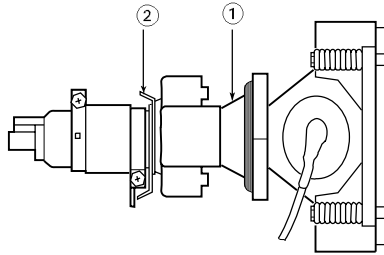
- When replacing the anode cap assembly (CRT) or anode lead assembly (F.B.T.), remove the anode lead holder from old one and attach the holder again to new anode lead.



**WARNING** : BEFORE SERVICING THIS CHASSIS, READ THE "X-RAY RADIATION PRECAUTION", "SAFETY PRECAUTION" AND "PRODUCT SAFETY NOTICE" ON PAGE 3 OF THIS MANUAL.

## PICTURE TUBE COMPONENTS ADJUSTMENT

### DESCRIPTION OF NECK COMPONENTS



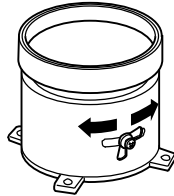
- ① **Deflection yoke and convergence yoke**  
The position on the neck is required most front (CRT funnel side) and the screw is fastened after rotating yoke adjusting picture tilt.
- ② **Centering magnet**  
After adjusting picture tilt, picture position is finally fixed by this magnet.  
In order to get maximum margin of user convergence control for center of screen, this magnet have to be used for center convergence adjustment.

### PREPARATION

Operate the receiver for at least 5 minutes.

**R, G, B FOCUS ADJUSTMENT**

1. Before adjusting the R, G, B FOCUS, remove the 4 screws of Lens Assembly which is fixed on the CRT Assembly. (See page 4.)
2. Select the adjustment mode. (See page 10.)
3. Press "7" button to display the built-in cross-hatch.
4. Press "0" and "RTN" buttons to make the picture a single Red color.  
     100 button ..... to erase Red color  
     0 button ..... to erase Green color  
     ENT button ..... to erase Blue color.
5. Loosen the fasten screw and adjust Red lens focus to best focusing point of picture center. Then fasten the screw. (See Fig. a.)

**Fig. a**

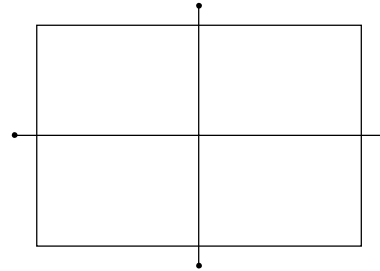
6. Adjust FOCUS VR "R" of FOCUS PACK to find best focusing point of picture center.
7. Repeat steps 3 to 5 for Green and Blue colors.

**TILT ADJUSTMENT**

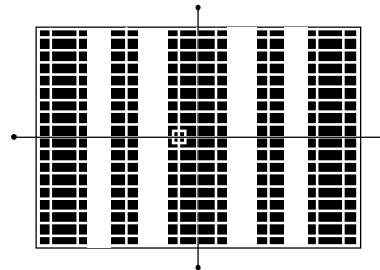
Rotate R, G, B deflection yoke so that picture becomes horizon, then fasten screw.

**CENTERING ADJUSTMENT**

1. Stretch a thread between two center of screen edge (top and bottom, left and right).

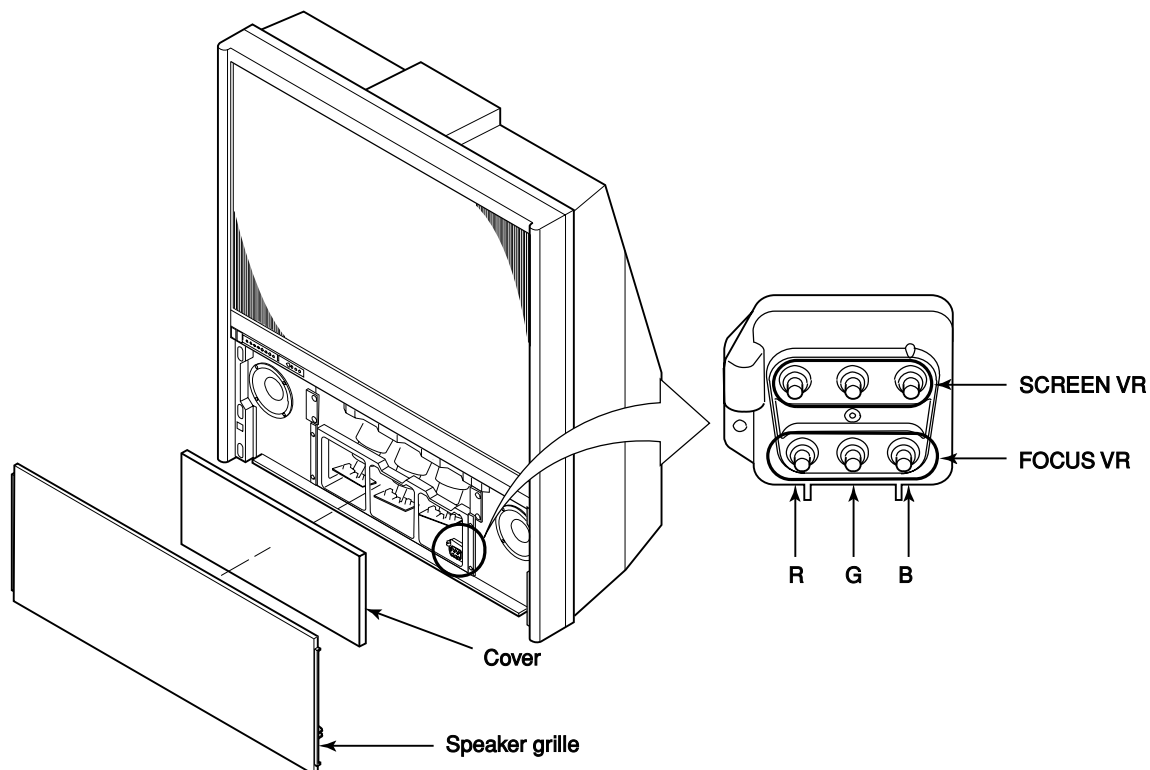


2. Receive NTSC.  
Then select SERVICE MODE. (See Page 10.)
3. Select CONVERGENCE ADJUSTING mode, and press "7" button to display the internal net pattern.  
Move Cursol and recognize horizontal line indicated Y:4. This line is vertical center. Push "9" button to display the vertical stripes, and recognize horizontal center.

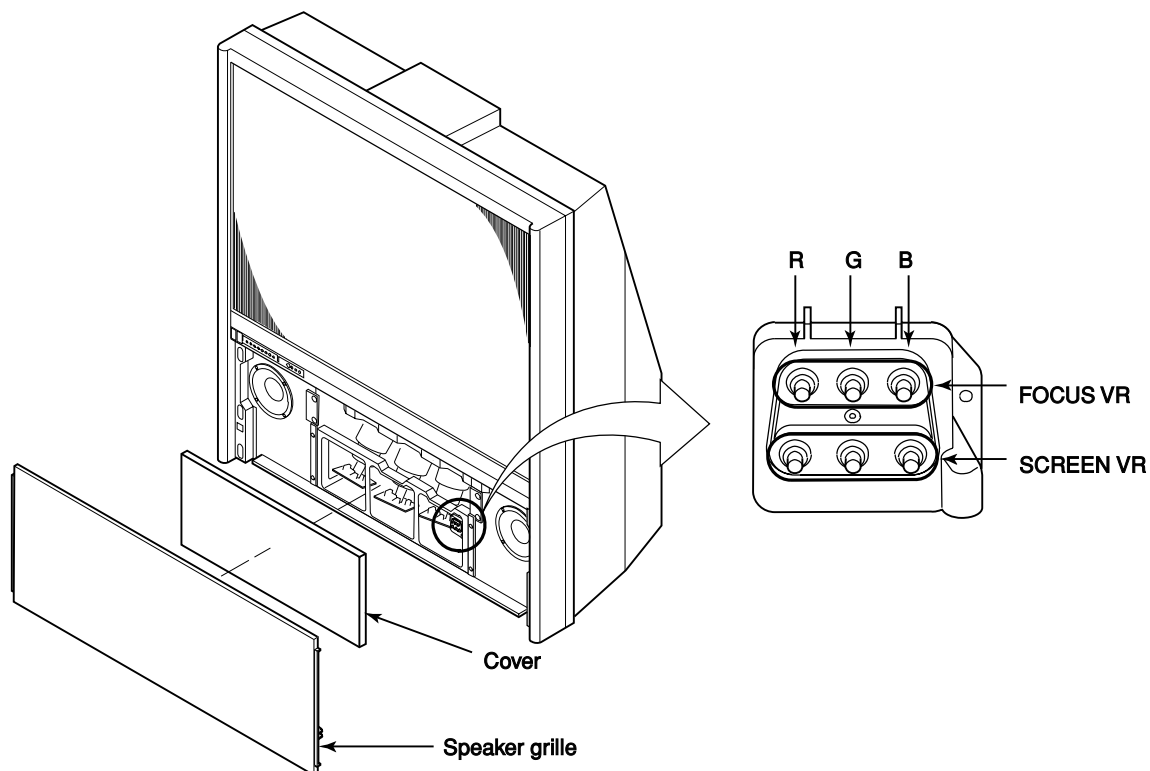


4. Perform VCEN adjustment. (See page 12.)
5. Adjust G centering magnet so that the cross-bar pattern center comes to screen center.
6. Perform HEIGHT adjustment. (See page 13.)
7. Perform VERT. LINEARITY adjustment.
8. Perform WIDTH adjustment. (See page 12.)
9. Check whole quality of green line.
10. Adjust R, B centering magnet so that the cross-bar pattern center comes to screen center.

**LOCATION OF SCREEN AND FOCUS VR'S (57", 65")**



**LOCATION OF SCREEN AND FOCUS VR'S (46", 51")**



## REPLACEMENT OF THE CRT

Service parts are provided for each R, G and B.  
The contents of the parts are as follows.

|                | R        | G        | B        |
|----------------|----------|----------|----------|
| HITACHI<br>CRT | 23008174 | 23008175 | 23008176 |

### REPLACEMENT OF HIGH VOLTAGE CABLE

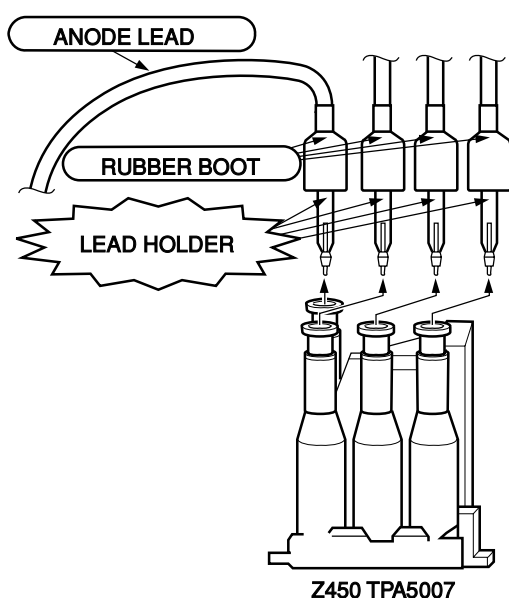


Fig. a

1. When replacing Anode Lead or Anode Cap with new one, remove Lead Holder from old lead as shown in figure below, and put it on new lead. Do not throw away Lead Holder.

**NOTE : THE LEAD HOLDER IS ATTACHED TO TPA5007 (Z450), BUT IS NOT ATTACHED TO ANODE LEAD AND ANODE CAP. RUBBER BOOT IS ATTACHED TO ANODE LEAD AND ANODE CAP.**

2. Detaching Lead Holder

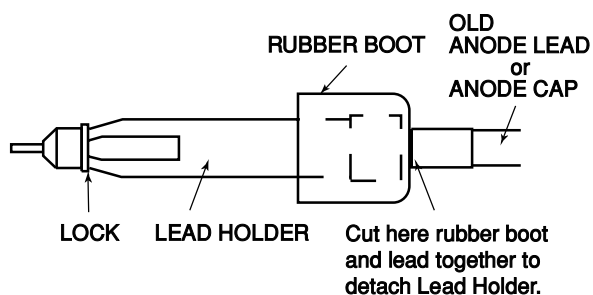
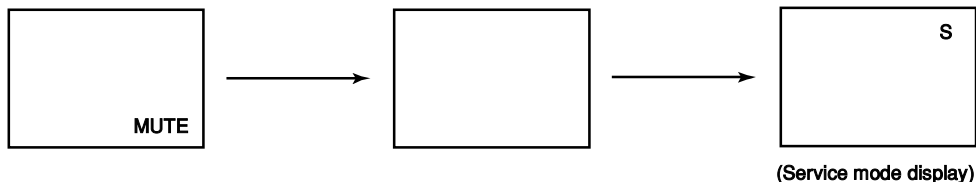


Fig. b

## SERVICE MODE

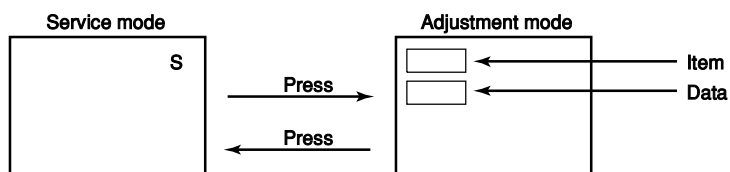
### 1. ENTERING TO SERVICE MODE

- 1) Press MUTE button twice on Remote Control.
- 2) Press MUTE button again to keep pressing.
- 3) While pressing the MUTE button, press MENU button on TV set.



### 2. DISPLAYING THE ADJUSTMENT MENU

- 1) Press MENU button on TV.



### 3. KEY FUNCTION IN THE SERVICE MODE

The following key entry during display of adjustment menu provides special functions.

|                                             |                                 |
|---------------------------------------------|---------------------------------|
| Screen adjustment mode ON/OFF:              | TV (ANT)/VIDEO button (on TV)   |
| Selection of the adjustment items :         | Channel ▲/▼ (on TV or Remote)   |
| Change of the data value :                  | Volume ▲/▼ (on TV or Remote)    |
| Adjustment menu mode ON/OFF :               | MENU button (on TV)             |
| Initialization of the memory (QA02) :       | RECALL+Channel button on TV (▲) |
| Initialization of the self diagnostic data: | RECALL+Channel button on TV (▼) |

|                           |          |
|---------------------------|----------|
| "RCUT" selection :        | 1 button |
| "GCUT" selection :        | 2 button |
| "BCUT" selection :        | 3 button |
| "SCNT" selection :        | 4 button |
| "SCOL" selection :        | 5 button |
| "TNTC" selection :        | 6 button |
| Convergence adj :         | 7 button |
| Self diagnostic display : | 9 button |

#### 4. SELECTING THE ADJUSTING ITEMS

- 1) Every pressing of CHANNEL ▲ button in the service mode changes the adjustment items in the order of table-2.  
(▼ button for reverse order)

Refer to table-2 for preset data of adjustment mode.  
(See SETTING & ADJUSTING DATA on page 18)

## 5. ADJUSTING THE DATA

- 1) Pressing of VOLUME ▲ or ▼ button will change the value of data in the range from 00H to FFH. The variable range depends on the adjusting item.

## 6. EXIT FROM SERVICE MODE

- 1) Pressing POWER button to turn off the TV once.**

## ■ INITIALIZATION OF MEMORY DATA OF QA02

**After replacing QA02, the following initialization is required.**

1. Enter the service mode, then select any register item.
2. Press and hold the **RECALL** button on the Remote, then press the **CHANNEL ▲** button on the TV. The initialization of QA02 has been completed.
3. Check the picture carefully. If necessary, adjust any adjustment item above.  
Perform "Programming Channel Memory" on the owner's manual.

**CAUTION:** Never attempt to initialize the data unless QA02 has been replaced.

## 7. SELF DIAGNOSTIC FUNCTION

- 1) Press "9" button on Remote Control during display of adjustment menu in the service mode.  
The diagnosis will begin to check if interface among IC's are executed properly.
- 2) During diagnosis, the following displays are shown.

SELF CHECK

① NO. 23 \*\*\*\*\*

② POWER : 000

③ BUS LINE : OK

④ BUS CONT : OK

⑤ BLOCK : MAIN SUB

⑥ SET ID : 01

⑦ EEP VER : 02

⑧ OPT1 : 05 OPT2 : 70

DVI

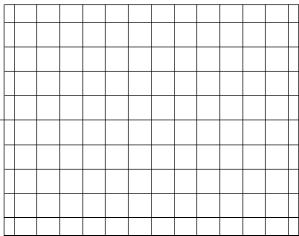
⑨ NO \*\*\*\*\*

⑩ ERR CODE : ○○○○○○

⑪ IR BLASTER VER : NG

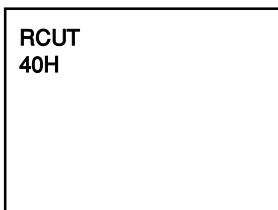
- ① Part number of microprocessor (QA01)
- ② Operation number of protection circuit (current limiter) . . . "000" is normal.
- ③ BUS line check — "OK" ..... Normal  
                              "SC-L-GND" or "NG" ..... SCL-GND short circuit  
                              "SDA-GND" or "NG" ..... SDA-GND short circuit  
                              "SC-SDA" or "NG" ..... SCL-SDA short circuit
- ④ BUS line ACK (acknowledge) check  
                              "OK" ..... Normal  
                              Display of Location Number . . . NG  
                              (Display example)  
                              "QA02 NG", "H001 NG", "Q501 NG" etc.  
                              Note: The indication of failure place is only one place though failure places are plural. When  
                                      repair of a failure place finishes, the next failure place is indicated. (The order of priority of  
                                      indication is left side.)
- ⑤ Sync. signal check — Green display ..... Normal  
                              Red display ..... NG  
                              MAIN ..... Main sync  
                              SUB ..... Sub sync (when turn on the PIP)
- ⑥ ID code for TV Set
- ⑦ Version of "EEP"
- ⑧ Data for "OPT"
- ⑨ Part number of DVI microprocessor (Q203)
- ⑩ DVI error code ..... "○○○○○○" is normal. (When DVI signal is received)
- ⑪ Version of IR braster IC ("NG" is displayed for models without TheaterLink.)

## ELECTRICAL ADJUSTMENT

| ITEM                                                            | ADJUSTMENT PROCEDURE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|-----------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| VERTICAL POSITION<br>(VPSI)                                     | <ol style="list-style-type: none"> <li>1. Receive NTSC signal.</li> <li>2. Connect the probe of digital voltmeter to TP-V and TP-G on SIGNAL Board.</li> <li>3. Call up the adjustment mode display, then select the item VCEN.</li> <li>4. Press the VOLUME ▲ or ▼ button to get the voltage <math>0 \pm 10</math> mV.</li> </ol>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| WIDTH<br>(WID)                                                  | <ol style="list-style-type: none"> <li>1. Receive NTSC signal.</li> <li>2. Select the "FULL" mode by PIC SIZE button on Remote Control.</li> <li>3. Call up the adjustment mode display, then select the item WID.</li> <li>4. Press the VOLUME ▲ or ▼ button to get the picture so that left and right edges of video signal begin to lack.</li> <li>5. Press the VOLUME ▲ button to advance the data by 8 steps.</li> </ol> <p>NOTE: Check the horizontal picture position is correct.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| SUB-BRIGHTNESS<br>(BRTC)                                        | <ol style="list-style-type: none"> <li>1. Receive the air signal or aux Video signal.</li> <li>2. Enter sports mode on user menu.</li> <li>3. Enter the service mode, then select "BRTC" register.</li> <li>4. Adjust the data to set dark area of picture to proper level.</li> </ol>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| HEIGHT<br>(HIT)                                                 | <ol style="list-style-type: none"> <li>1. Receive NTSC signal.</li> <li>2. Select the "FULL" mode by PIC SIZE button on Remote Control.</li> <li>3. Call up the adjustment mode display and select the item HIT.</li> <li>4. Press the VOLUME ▲ or ▼ button to get the picture so that top and bottom of video signal begin to lack.</li> <li>5. Press the VOLUME ▲ button to advance the data by 8 steps.</li> </ol> <p>Note: Check the vertical picture position is correct.<br/>Adjust the data of height after vertical linearity.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| VERTICAL LINEARITY<br>(VLIN)<br>(FULL mode only)                | <ol style="list-style-type: none"> <li>1. Receive cross-hatch pattern.</li> <li>2. Call up the adjustment mode display, then select the item VLIN.</li> <li>3. Press the VOLUME ▲ or ▼ button to obtain the picture of the best linearity.</li> <li>4. Then readjust the item HIT.</li> </ol>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| WHITE BALANCE<br>(RCUT)<br>(GCUT)<br>(BCUT)<br>(RDRV)<br>(BDRV) | <ol style="list-style-type: none"> <li>1. Press RESET button on TV or remote hand set.</li> <li>2. Call up the adjustment mode display, then adjust the data of items <b>RCUT</b>, <b>GCUT</b> and <b>BCUT</b> to "80".</li> <li>3. Press TV (ANT)/VIDEO button on TV.</li> <li>4. Gradually rotate R, G and B SCREEN volume of FOCUS PAC (page 9) clockwise or counterclockwise until the raster appears slightly on the CRT through the each lens, and leave them.<br/>(Look into the lens in order to check the raster.)</li> <li>5. Press TV (ANT)/VIDEO button on TV again.</li> <li>6. Exit from service mode.</li> <li>7. Receive white raster pattern signal, and adjust the contrast to the minimum to make white picture to low light.</li> <li>8. Adjust the data of items <b>RCUT</b>, <b>GCUT</b> and <b>BCUT</b> for low light area.</li> <li>9. Adjust the contrast to the maximum to make white picture to high light.</li> <li>10. Adjust the data of items <b>RDRV</b> and <b>BDRV</b> Controls for proper white-balanced picture in high light area.</li> <li>11. Check the white balance in both low and high light areas. If necessary, perform again steps from 7 to 9.</li> </ol> |

## CONVERGENCE ADJUSTMENT

1. Receive NTSC signal.
2. Enter to the service mode. (See Page 10.)



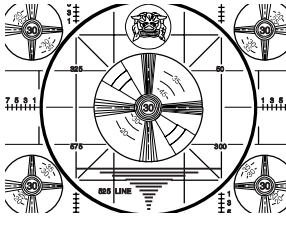
3. Press "7" button to enter the convergence adjusting mode, and the internal net pattern will be displayed. Then, press "9" button to display vertical stripes.
4. Select the point and the color by pressing following buttons. (Cursor should be blinking.)  
 "2", "8", "4", "6" : To select point  
 "3" : To select color
5. Then press "5" button, and adjust the convergence by pressing following buttons. (Cursor should not be blinking.)  
 "2", "8", "4", "6" : To adjust convergence  
 "3" : To select color
6. Repeat from steps 3 to 4 until the convergence and the geometry become fine. (See Page 14.)
7. Press "7" button to memorize the adjusted data.
8. Message of "PLEASE PUSH TOUCH FOCUS" will be displayed, and press TOUCH FOCUS button which is located on the front panel.
9. TOUCH FOCUS CALIBRATION will start.
10. Soon message of "CALIBRATION FINISHED" will be displayed, and then a normal picture will be displayed.
11. Then push TOUCH FOCUS button again, and confirm that the convergence does not change.

**Note:** If message of "TOUCH FOCUS ERROR" is displayed,  
 1) Check the connection between four sensors and Convergence Unit.  
 2) Check the geometry of internal net pattern. (See Page 14.)  
 If any problem cannot be found, hardware might have problem.

### EXPLANATION OF KEY-FUNCTION IN THE CONVERGENCE ADJUSTMENT MODE

|                            |            |
|----------------------------|------------|
| Load BACK UP DATA:         | 1 button   |
| Up :                       | 2 button   |
| Selet Green color:         | 3 button   |
| Left :                     | 4 button   |
| Blinking of cursor ON/OFF: | 5 button   |
| Right:                     | 6 button   |
| Adjust mode ON/OFF:        | 7 button   |
| Down:                      | 8 button   |
| Vertical stripe ON/OFF     | 9 button   |
| Erase Green line:          | 0 button   |
| Erase Red line:            | 100 button |
| Erase Blue line:           | ENT button |

## DEFLECTION and CONVERGENCE

| ITEM                | NAME                                 | SETTING                                                                      | INPUT SIGNAL | TEST POINT           | MEASUREMENT INSTRUMENT | ADJUSTMENT METHOD                                                                                                                                                                                        | ADJUSTMENT SPEC     |
|---------------------|--------------------------------------|------------------------------------------------------------------------------|--------------|----------------------|------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|
| VPS1                | VERTICAL Raster centering Adjustment | CONTRAST:MAX<br>BRIGHTNESS:CNT<br>COLOUR :CNT<br>TINT :CNT                   | Retma Signal | Between TP-G to TP-V | Digital Volt Meter     | To adjust the voltage between TP-G and TP-V                                                                                                                                                              | $0 \pm 10\text{mV}$ |
| Centering Adjusment |                                      | CONTRAST:MAX<br>BRIGHTNESS:CNT<br>COLOUR :CNT<br>TINT :CNT<br>PIC SIZE :FULL | Retma Signal | Picture Adjustment   | Picture Adjustment     | 1. To adjust the Magnet about Horizontal position and Vertical position should center of picture.<br>2. To adjust each R, G, B.                                                                          |                     |
| WID                 | Horizontal Adjustment (FULL)         | CONTRAST:MAX<br>BRIGHTNESS:CNT<br>COLOUR :CNT<br>TINT :CNT<br>PIC SIZE :FULL | Retma Signal | Picture Adjustment   | Picture Adjustment     | To adjust the Horizontal Amplitude by WID.                                                                                                                                                               | $11 \pm 1$ bar      |
| HIT VLIN            | Vertical Adjustment (FULL)           | CONTRAST:MAX<br>BRIGHTNESS:CNT<br>COLOUR :CNT<br>TINT :CNT<br>PIC SIZE :FULL | Retma Signal | Picture Adjustment   | Picture Adjustment     |  <p>Upper ..... Circle of Lion just touch to line of Mask.</p> <p>Bottom .... To hide the 12 bars by line of Mask.</p> |                     |
| Conver-gence        |                                      |                                                                              | Retma Signal | Picture Adjustment   | Picture Adjustment     | Refer to the following (Conver-gence Net Geometry)                                                                                                                                                       |                     |

## CONVERGENCE (51 / 57 / 65 WIDE)

| Net Pattern Geometry |        |        |        |        |        |        |        |        |        |        | Model  | 51WIDE  | 57WIDE  | 65WIDE  |
|----------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|---------|---------|
|                      |        |        |        |        |        |        |        |        |        |        | V size | 635.085 | 780.750 | 810.000 |
|                      |        |        |        |        |        |        |        |        |        |        |        | 308.0   | 344.0   | 392.8   |
|                      |        |        |        |        |        |        |        |        |        |        |        | 231.0   | 258.0   | 294.6   |
|                      |        |        |        |        |        |        |        |        |        |        |        | 115.5   | 129.0   | 147.3   |
|                      |        |        |        |        |        |        |        |        |        |        |        | 0.0     | 0.0     | 0.0     |
|                      |        |        |        |        |        |        |        |        |        |        |        | 115.5   | 129.0   | 147.3   |
|                      |        |        |        |        |        |        |        |        |        |        |        | 231.0   | 258.0   | 294.6   |
|                      |        |        |        |        |        |        |        |        |        |        |        | 308.0   | 344.0   | 392.8   |
|                      |        |        |        |        |        |        |        |        |        |        | V span | 38.5    | 43.0    | 49.1    |
| Model                | H size | 51WIDE | 57WIDE | 65WIDE | 51WIDE | 57WIDE | 65WIDE | 51WIDE | 57WIDE | 65WIDE | H span | 51.6    | 102.3   | 117.0   |
| 51WIDE               | 1129.0 | 549.7  | 458.1  | 274.9  | 91.6   | 0.0    | 91.6   | 274.9  | 458.1  | 549.7  | 91.6   | 102.3   | 117.0   |         |
| 57WIDE               | 1260.0 | 613.5  | 511.3  | 306.8  | 102.3  | 0.0    | 102.3  | 306.8  | 511.3  | 613.5  | 102.3  | 117.0   |         |         |
| 65WIDE               | 1442.0 | 702.1  | 585.1  | 351.1  | 117.0  | 0.0    | 117.0  | 351.1  | 585.1  | 702.1  | 117.0  |         |         |         |

UNIT: mm

**NOTES**

In many cases, color misconvergence may be corrected by returning HIT and WID data in main deflection side to initial adjusting values. Following cases will surely require readjustment of convergence.

**CRT REPLACEMENT**

When CRT is replaced, main deflection readjustment and color matching are required.

Perform following procedures.

1. Replace two CRT's of blue and red.
2. Perform horizontal adjustment for blue and red yokes on base of green CRT data. Mount yoke and velocity mod. coil alignment, pushing towards CRT without gap.
3. Adjust alignment of blue and red. (Refer Alignment adjustment for details.)
4. Rotating centering magnet, adjust CRT centers of red and blue to CRT center of green.  
(Picture position adjustment)
5. Adjust HIT and WID data of main deflection, and decide data at the most precise screen comparing to green data.
6. Adjust convergence of screen picture for color matching. Do not move green one at this time.
7. After convergence adjustment of screen picture finishes, replace green CRT.  
For green CRT as well, repeat steps 2 to 5 above on bases of red and blue color matching to adjust convergence.
8. Execute TOUCH FOCUS following instructions displayed on the screen after finishing convergence adjustments of all the colors.

Note: Press button "7" again after "PLEASE PUSH TOUCH FOCUS" has been displayed. Then, TOUCH FOCUS will not be executed, and the current state of convergence will be displayed.

**REPLACING CONVERGENCE UNIT**

1. Confirm that the initial data, which is specified by a model name, is memorized in the new unit.  
(It's not allowed to use the data of other models.)
2. Mount the new unit to the SET, and turn the POWER on.
3. Adjust centering magnets, Hight (HIT) and Width (WID). (See Page 7.)
4. Adjust the convergence. (See Page 13.)

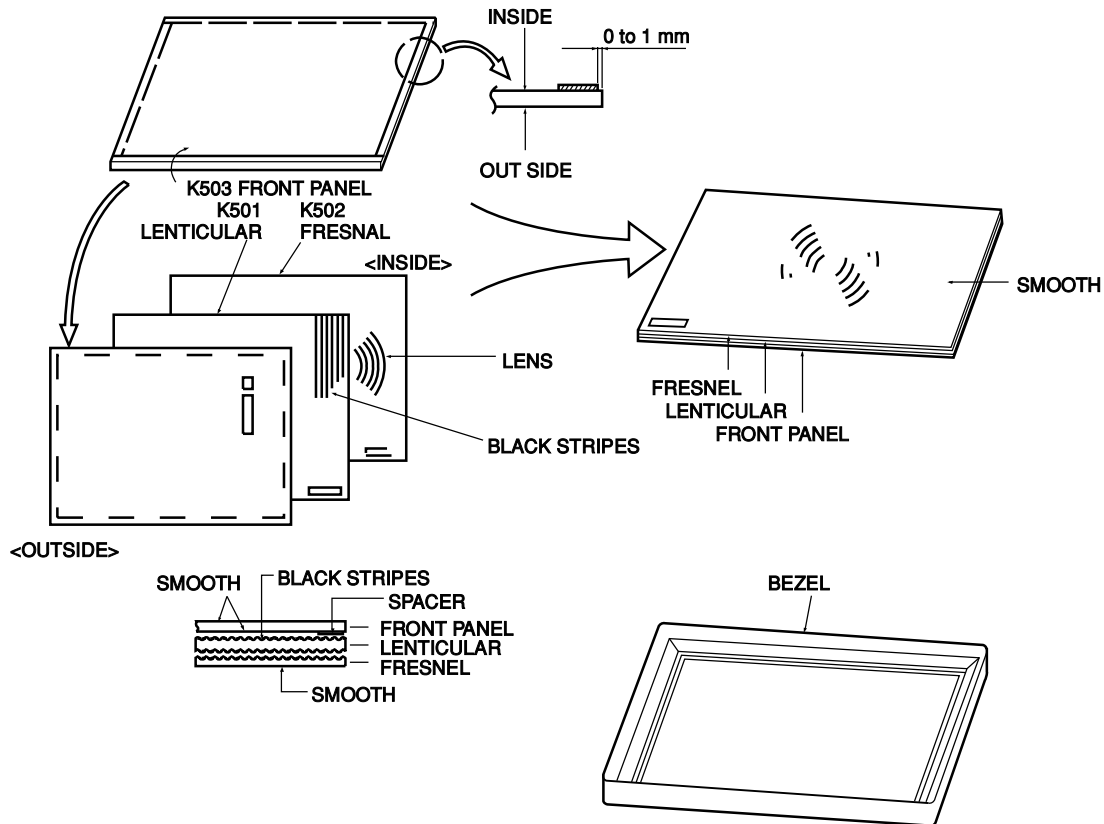
If the memory in the defective module is available, following steps are allowed.

1. Remove the memory (Q173) from the defective unit, and mount it to the new unit.
2. Mount the new unit to the SET, and turn the POWER on.
3. Enter to the convergence adjusting mode, and load BACKUP DATA by pressing "1" button. (See Page 13.)
4. Adjust centering magnets. (See Page 7.)
5. Adjust the convergence. (See Page 13.)

## SCREEN AND MIRROR ALIGNMENTS

### ASSEMBLING OF FRONT SCREEN

### MOUNTING OF FRONT SCREEN



**CAUTION :** Do not hold the optical system parts (lens and mirror) with bare hand to avoid finger-prints on the surface of those parts.

#### HOW TO CLEAN LENS AND MIRROR

1. Be sure to remove sand dust with an air brush, etc.
  2. When it is stained slightly, breathe upon it and wipe away with the specified cleaning cloth.
- For other stains than the above, wipe the stains away with the specified cloth into which a cleaning liquid has been soaked.

Cleaning liquid..... **LENS LUSTER** (Manufactured by Edmund Scientific Co.), etc.

#### HOW TO CLEAN SCREEN

When cleaning the screen, use a soft cloth so as not to damage the screen.

1. Wipe the screen with a dry cloth to remove moisture on the screen.

**Note :** Absolutely do not use detergent, water, alcohol, benzine, thinner, etc. for cleaning in order not to wipe away the black print on the surface.

## CIRCUIT CHECKS

### HIGH VOLTAGE CHECK

**CAUTION:** There is no HIGH VOLTAGE ADJUSTMENT on this chassis. Checking should be done following the steps below.

1. Connect an accurate high voltage meter to the anode of the picture tube.
2. Turn on the receiver. Set the BRIGHTNESS and CONTRAST to minimum (zero beam current).
3. High voltage must be measured below (B) kV.

Refer to table-1 for high voltage (B).  
(See SETTING & ADJUSTING DATA on page 18)

4. Vary the BRIGHTNESS to both extremes to be sure the high voltage does not exceed the limit under any conditions.

**CAUTION:**

When the following parts fail, check the High Voltage after replacing.

| Location No. | Name      | Descriptions      |
|--------------|-----------|-------------------|
|              |           | 51", 57", 65"     |
| T461         | Flyback   | TFB3092AD         |
| C440         | Capacitor | 1000pF, $\pm 3\%$ |
| C443         | Capacitor | 5100pF, $\pm 3\%$ |
| C444         | Capacitor | 3300pF, $\pm 3\%$ |
| C467         | Capacitor | 6800pF, $\pm 5\%$ |
| C468         | Capacitor | 6800pF, $\pm 5\%$ |

### ANODE VOLTAGE MEASURING METHOD

**CAUTION:** Take extra precaution when measuring this high voltage. High voltages are also present in surrounding circuit boards (CRT DRIVE assembly, DEFLECTION assembly, and POWER SUPPLY assembly).

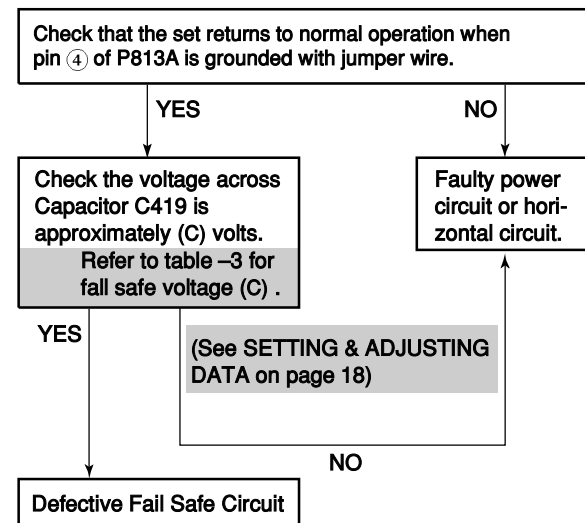
1. Disconnect the FBT anode cable as outlined below. Measure high voltage at the point where the cable enters the FBT.
2. Holding the rubber cover firmly, turn it counterclockwise and check that the lock has been disengaged. (See Fig. b on page 9.)
3. Determine the extent of the rubber cover before disconnecting the cable.
4. Pull straight up the anode cable to disconnect.
5. When reconnecting the cable, proceed in the reverse order. After reconnecting, tug on the cable to check that it is secure.

### FS CIRCUIT CHECK

The Fail Safe (FS) circuit check is indispensable for the final check in servicing. Checking should be done following the steps below.

1. Turn the receiver on.
2. Temporarily short TP- (R) and TP- (X) on the DEF/CONVER Board with a jumper wire. Raster and sound will disappear.
3. The receiver must remain in this state even after removing the jumper wire. This is the evidence that the FS circuit is functioning properly.
4. To obtain a picture again, temporarily turn the receiver off and allow the FS circuit more than 5 seconds to reset. Then turn the receiver on to produce a normal picture.

### Troubleshooting Guide for Fail Safe Circuit



## CHAPTER 2 SPECIFIC INFORMATION

### SETTING & ADJUSTING DATA

#### 【 SAFETY INSTRUCTIONS 】

|                            |     | 51", 57", 65" |
|----------------------------|-----|---------------|
| HIGH VOLTAGE AT ZERO BEAM: | (A) | 31.0 kV       |
| MAX HIGH VOLTAGE:          | (B) | 32.5 kV       |

Table-1

#### 【 SERVICE MODE 】

##### ADJUSTING ITEMS AND DATA IN THE SERVICE MODE:

| Item | Name of adjustment | Preset | Data | Item | Name of adjustment | Preset | Data |
|------|--------------------|--------|------|------|--------------------|--------|------|
| RCUT | R CUT OFF          | 80H    | ←    | COLC | COLOR CENTER       | 52H    | ←    |
| BCUT | B CUT OFF          | 80H    | ←    | VCP  | V COMPENSATION     | 04H    | ←    |
| GDRV | G DRIVE            | 40H    | ←    | PARA | EW PARABOLA        | 11H    | ←    |
| BDRV | B DRIVE            | 40H    | ←    | CNR  | EW M CORRECTION    | 10H    | ←    |
| BRTC | BRIGHT CENTER      | 80H    | ←    | HCP  | H COMPENSATION     | 00H    | ←    |
| HIT  | PICTURE HIT        | 32H    | ←    | VFC  | V f CORRECTION     | 00H    | ←    |
| VLIN | V LINEARITY        | 13H    | ←    | VPSI | V CENTERRING       | 4DH    | ←    |
| VSC  | V S CORRECTION     | 29H    | ←    | TVOP | TV OPTION          | 58H    | ←    |
| WID  | PICTURE WIDTH      | 32H    | ←    |      |                    |        |      |

Table-2

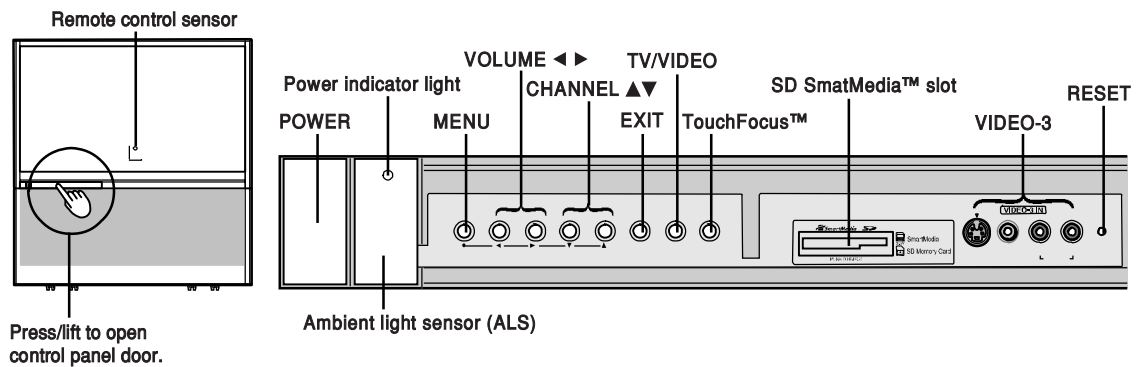
#### 【 CIRCUIT CHECKS 】

|                  |     |       |
|------------------|-----|-------|
| HIGH VOLTAGE DET | (C) | 8.7 V |
|------------------|-----|-------|

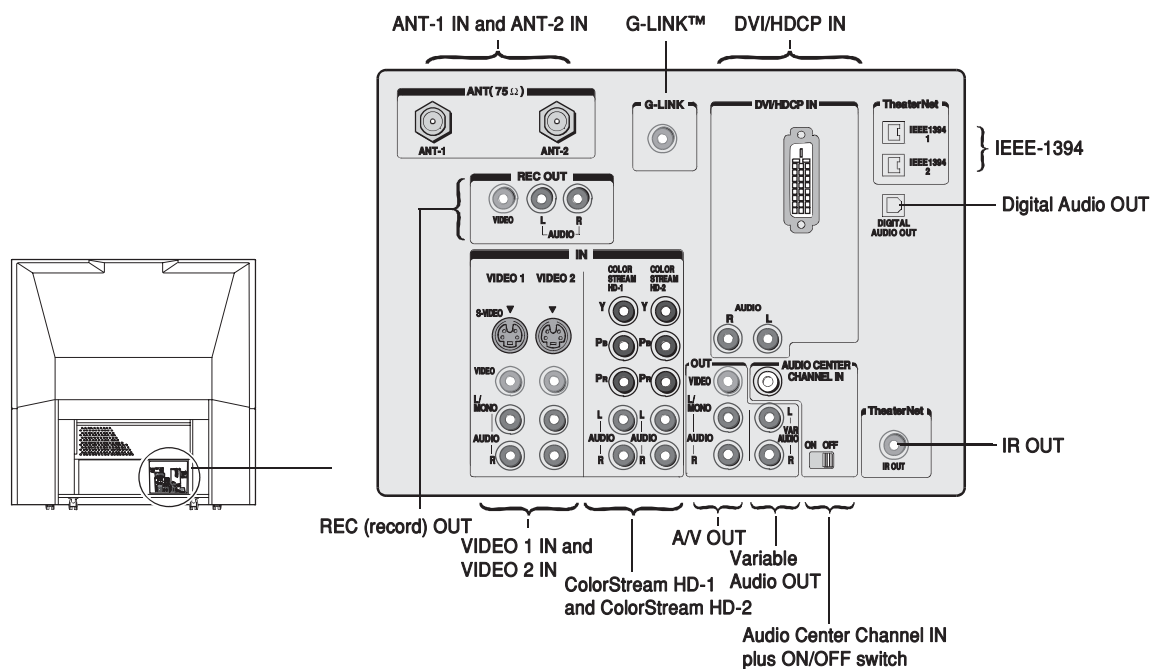
Table-3

## LOCATION OF CONTROLS (Representative: 51HX93)

### TV front



### TV rear



## Remote control

**POWER** turns the TV on and off.

**SLEEP** accesses the sleep timer.

**LIGHT** The first press of the LIGHT button lights the keypad and turns on the Illumination mode. With the Illumination mode on, pressing any other key lights the keypad for 5 seconds (10 seconds if you're in programming mode). Subsequent presses of the LIGHT button toggle between turning the Illumination mode on and off.

**Channel Numbers (0–9, 100)** directly access channels.

**MODE** cycles through the six device modes: TV, CABLE/SAT, VCR, DVD, AUDIO1, and AUDIO2. The mode indicator light will remain lit for a few seconds.

**PIC SIZE** cycles through the five picture sizes: Natural, Theater Wide 1/2/3, and Full.

**THEATER NET** accesses the on-screen IR device control icons.

**MENU** accesses the menu system.

**GUIDE** opens the TV Guide On Screen system.

**INFO** provides detailed information on highlighted items in the TV Guide On Screen system.

**BLUE and GREEN buttons** select menu-specific functions in the TV Guide On Screen system.

**ENTER** activates highlighted items in the main menu system and the TV Guide On Screen system.

**▲▼◀▶** select or adjust programming menus.

**FAV** accesses the favorite channel search function.

**CH ▲▼** cycles through programmed channels when no menu is on-screen; functions as page up/down when a menu is on-screen or when the TV Guide On Screen system is open.

**VOL ▲▼** adjusts the volume level.

**EXIT** closes on-screen menus and the TV Guide On Screen system.

**CH RTN** returns to the last viewed channel.

**INPUT** selects the video input source.

**RECALL** displays TV setting information on-screen.

**MUTE** reduces or turns off the sound.

**TV/VCR** press to select TV mode to view one program while recording another.

**SPLIT** turns the POP feature on and off.

**POP CH ▲▼** selects the POP (picture-out-picture) channel.

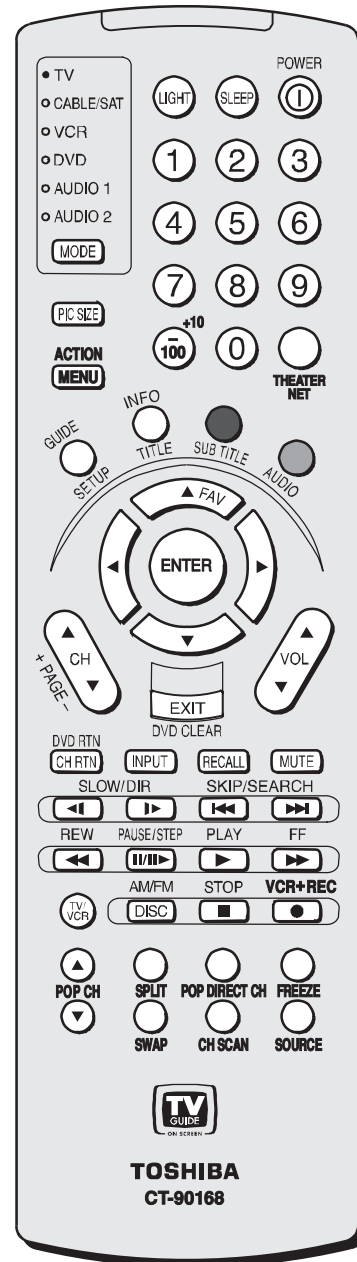
**POP DIRECT CH** allows direct access to POP channels.

**FREEZE** freezes the main picture in the double-window.

**SWAP** switches the main and POP pictures.

**CH SCAN** allows access to the programmed channel search function.

**SOURCE** selects the POP picture source.



### Note:

The error message "Not Available " will appear if you press a key for a function that is not available.

## PROGRAMMING CHANNELS INTO THE TV'S CHANNEL MEMORY

When you press CHANNEL ▲ or ▼ on the remote control or TV front panel, your TV will stop only on the channels stored in the TV's channel memory.

Follow the steps below to program channels into the TV's channel memory.

### Programming channels automatically

Your TV can automatically detect all active channels in your area and store them in its memory. After the channels are programmed automatically, you can manually add or erase individual channels.

**Note:**

- If you already programmed channels automatically during the Quick Connect Guide assisted setup, you can skip to "Manually adding and deleting channels in the channel memory" on the next page.
- You must configure the antenna input sources before programming channels.
- The automatic channel programming process does NOT erase channels that were previously programmed into the TV's memory, but adds newly found channels to the existing set of programmed channels. To remove a channel from the memory, you must manually delete it.
- To tune the TV to a channel not programmed in the channel memory, you must use the Channel Number buttons on the remote control.
- Programming channels for an antenna input configured for CABLE will take substantially longer than for an antenna input configured for ANTENNA. This is normal; however, once channel programming is completed, you should not have to repeat the programming process again unless your Cable TV service lineup changes significantly.

### To program channels automatically:

- 1** Make sure you have configured the antenna input sources.
- 2** Press MENU and open the SETUP menu.
- 3** Highlight INSTALLATION and press ENTER. (A new set of INSTALLATION menu icons will appear on-screen, as shown in step 4.)
- 4** Open the TERRESTRIAL menu, highlight CHANNEL PROGRAM, and press ENTER.
- 5** Highlight ANT 1 or ANT 2, depending on which antenna input you want to program channels for, and then press ENTER to start automatic channel programming.  
The TV will automatically cycle through all the channels for the antenna input you selected, and store all active channels in the channel memory. While the TV is cycling through the channels, the message "Scanning channels, please wait" appears.  
To cancel channel programming, highlight ABORT and press ENTER.
- 6** When channel programming is done, press CHANNEL ▲ or ▼ to view the programmed channels.

### Manually adding and deleting channels in the channel memory

After you have programmed the channels automatically, you can manually add or delete individual channels in the channel memory.

#### To add or delete channels in the channel memory:

- 1** Press MENU and open the SETUP menu.
- 2** Highlight INSTALLATION and press ENTER. (A new set of INSTALLATION menu icons will appear on screen, as shown in step 3).
- 3** Open the TERRESTRIAL menu, highlight CHANNEL ADD/DELETE, and then press ENTER.
- 4** The illustration below shows channels programmed for the ANT 1 antenna input. To view the list of channels programmed for the ANT 2 antenna input, highlight CHANGE ANTENNA and press ENTER.

#### To add a channel to the channel memory:

Highlight the unchecked box next to the channel number you want to add, and then press ENTER to check the box.

#### To remove a channel from the channel memory:

Highlight the checked box next to the channel number you want to remove, and then press ENTER to uncheck the box.

#### To save your new settings:

Highlight SAVE and press ENTER.

#### To revert to your original settings:

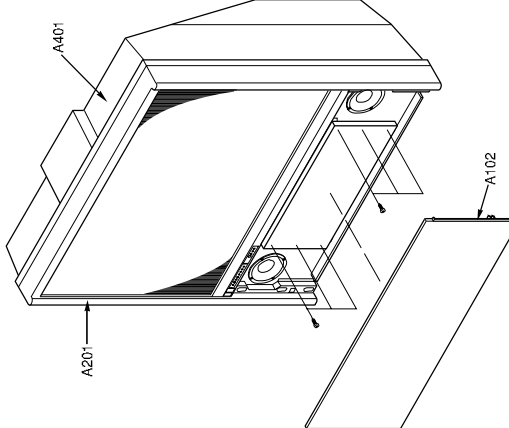
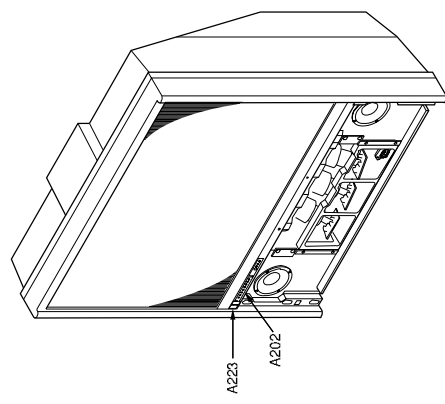
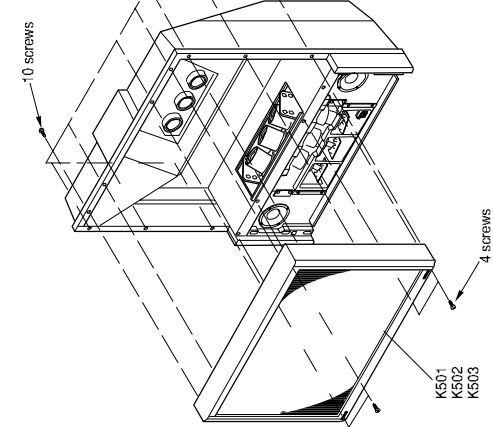
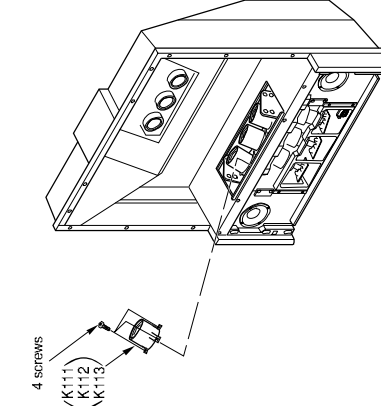
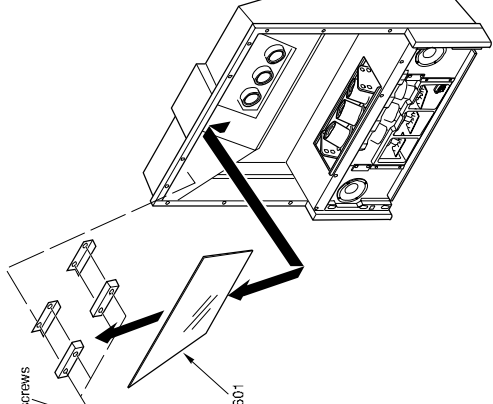
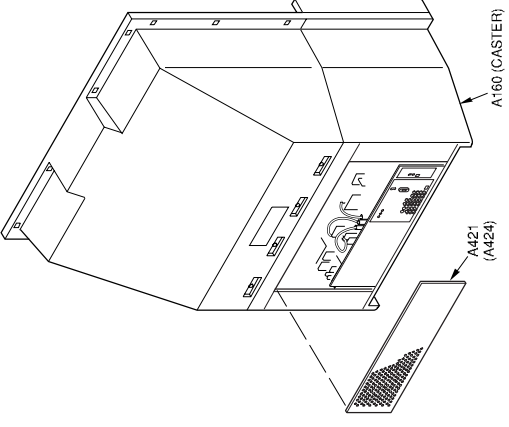
Highlight CANCEL and press ENTER before saving.

#### To remove all channels from the channel memory:

Highlight CLEAR ALL and press ENTER, and then highlight SAVE and press ENTER.

**Note:** This action cannot be cancelled unless you highlight CANCEL and press ENTER before saving your changes.

## MECHANICAL DISASSEMBLY

|                                                                                                                                 |                                                                                                                          |                                                                                                                       |
|---------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|
| <p><b>1 Speaker Grille Removal</b></p>       | <p><b>2 Control Panel Removal</b></p>  | <p><b>3 Front Mask Removal</b></p>   |
| <p><b>4 Shield Plate, Lens Removal</b></p>  | <p><b>5 Mirror Removal</b></p>        | <p><b>6 Back Board Removal</b></p>  |

THIS PAGE IS  
INTENTIONALLY LEFT  
BLANK.

## CHASSIS REPLACEMENT PARTS LIST

**WARNING:** BEFORE SERVICING THIS CHASSIS, READ THE "X-RAY RADIATION PRECAUTION", "SAFETY PRECAUTION" AND "PRODUCT SAFETY NOTICE" ON PAGE 3 OF THIS MANUAL.

**CAUTION:** The international hazard symbols "⚠" in the schematic diagram and the parts list designate components which have special characteristics important for safety and should be replaced only with types identical to those in the original circuit or specified in the parts list. The mounting position of replacements is to be identical with originals. Before replacing any of these components, read carefully the PRODUCT SAFETY NOTICE. Do not degrade the safety of the receiver through improper servicing.

**NOTICE:**

- The part number must be used when ordering parts, in order to assist in processing, be sure to include the Model number and Description.
- The PC board assembly with \* mark is no longer available after the end of the production.

**Models : 51HX93, 57HX93, 65HX93**

Capacitors ..... CD : Ceramic Disk      PF : Plastic Film      EL : Electrolytic  
Resistors ..... CF : Carbon Film      CC : Carbon Composition      MF : Metal Film  
                         OMF : Oxide Metal Film      VR : Variable Resistor      FR : Fusible Resistor

(All CD and PF capacitors are  $\pm 5\%$ , 50V and all resistors,  $\pm 5\%$ , 1/6W unless otherwise noted.)

| Location No.      | Parts No. | Description                     |
|-------------------|-----------|---------------------------------|
| <b>CAPACITORS</b> |           |                                 |
| C101              | 24797339  | ELECTROLYTIC, 50V 3.3UF M       |
| C102              | 24665221  | ELECTROLYTIC, 10V 220UF M 3A    |
| C105              | 24100102  | CERAMIC CHIP, 50V F 1000PF Z    |
| C106              | 24669479  | ELECTROLYTIC, 50V 4.7UF M 3A    |
| C107              | 24666221  | ELECTROLYTIC, 16V 220UF M 3A    |
| C108              | 24665221  | ELECTROLYTIC, 10V 220UF M 3A    |
| C112              | 24665221  | ELECTROLYTIC, 10V 220UF M 3A    |
| C115              | 24100102  | CERAMIC CHIP, 50V F 1000PF Z    |
| C117              | 24666221  | ELECTROLYTIC, 16V 220UF M 3A    |
| C119              | 24109473  | CERAMIC CHIP, 25V B 0.047UF K   |
| C198              | 24100104  | CERAMIC CHIP, 25V F 0.1UF Z     |
| C199              | 24100104  | CERAMIC CHIP, 25V F 0.1UF Z     |
| C201              | 24203100  | ELECTROLYTIC, 16V 10UF M 7L 3A  |
| C202              | 24100104  | CERAMIC CHIP, 25V F 0.1UF Z     |
| C203              | 24100104  | CERAMIC CHIP, 25V F 0.1UF Z     |
| C204              | 24100104  | CERAMIC CHIP, 25V F 0.1UF Z     |
| C205              | 24100104  | CERAMIC CHIP, 25V F 0.1UF Z     |
| C205              | 24766229  | ELECTROLYTIC, 50V 2.2UF M       |
| C206              | 24100104  | CERAMIC CHIP, 25V F 0.1UF Z     |
| C206              | 24797229  | ELECTROLYTIC, 50V 2.2UF M       |
| C207              | 24203100  | ELECTROLYTIC, 16V 10UF M 7L 3A  |
| C208              | 24100104  | CERAMIC CHIP, 25V F 0.1UF Z     |
| C209              | 24100104  | CERAMIC CHIP, 25V F 0.1UF Z     |
| C210              | 24100104  | CERAMIC CHIP, 25V F 0.1UF Z     |
| C211              | 24100104  | CERAMIC CHIP, 25V F 0.1UF Z     |
| C212              | 24203100  | ELECTROLYTIC, 16V 10UF M 7L 3A  |
| C213              | 24100104  | CERAMIC CHIP, 25V F 0.1UF Z     |
| C214              | 24100104  | CERAMIC CHIP, 25V F 0.1UF Z     |
| C215              | 24100104  | CERAMIC CHIP, 25V F 0.1UF Z     |
| C216              | 24203100  | ELECTROLYTIC, 16V 10UF M 7L 3A  |
| C217              | 24100104  | CERAMIC CHIP, 25V F 0.1UF Z     |
| C218              | 24100104  | CERAMIC CHIP, 25V F 0.1UF Z     |
| C219              | 24109103  | CERAMIC CHIP, 50V B 0.01UF K    |
| C220              | 24206479  | ELECTROLYTIC, 50V 4.7UF M 7L 3A |
| C221              | 24503041  | PLASTIC FILM, 63V 0.1UF J       |
| C221              | 24203100  | ELECTROLYTIC, 16V 10UF M 7L 3A  |
| C222              | 24100104  | CERAMIC CHIP, 25V F 0.1UF Z     |
| C223              | 24100104  | CERAMIC CHIP, 25V F 0.1UF Z     |

| Location No. | Parts No. | Description                    |
|--------------|-----------|--------------------------------|
| C224         | 24100104  | CERAMIC CHIP, 25V F 0.1UF Z    |
| C225         | 24203100  | ELECTROLYTIC, 16V 10UF M 7L 3A |
| C226         | 24100104  | CERAMIC CHIP, 25V F 0.1UF Z    |
| C227         | 24100104  | CERAMIC CHIP, 25V F 0.1UF Z    |
| C228         | 24100104  | CERAMIC CHIP, 25V F 0.1UF Z    |
| C229         | 24100104  | CERAMIC CHIP, 25V F 0.1UF Z    |
| C230         | 24100104  | CERAMIC CHIP, 25V F 0.1UF Z    |
| C231         | 24100104  | CERAMIC CHIP, 25V F 0.1UF Z    |
| C232         | 24203100  | ELECTROLYTIC, 16V 10UF M 7L 3A |
| C233         | 24109103  | CERAMIC CHIP, 50V B 0.01UF K   |
| C236         | 24100104  | CERAMIC CHIP, 25V F 0.1UF Z    |
| C237         | 24100104  | CERAMIC CHIP, 25V F 0.1UF Z    |
| C238         | 24203100  | ELECTROLYTIC, 16V 10UF M 7L 3A |
| C239         | 24100104  | CERAMIC CHIP, 25V F 0.1UF Z    |
| C240         | 24100104  | CERAMIC CHIP, 25V F 0.1UF Z    |
| C241         | 24100104  | CERAMIC CHIP, 25V F 0.1UF Z    |
| C242         | 24100104  | CERAMIC CHIP, 25V F 0.1UF Z    |
| C243         | 24203100  | ELECTROLYTIC, 16V 10UF M 7L 3A |
| C244         | 24100104  | CERAMIC CHIP, 25V F 0.1UF Z    |
| C245         | 24105560  | CERAMIC CHIP, 50V CH 56PF J    |
| C246         | 24105150  | CERAMIC CHIP, 50V CH 15PF J    |
| C247         | 24105270  | CERAMIC CHIP, 50V CH 27PF J    |
| C248         | 24105101  | CERAMIC CHIP, 50V CH 100PF J   |
| C249         | 24105820  | CERAMIC CHIP, 50V CH 82PF J    |
| C250         | 24105560  | CERAMIC CHIP, 50V CH 56PF J    |
| C251         | 24105150  | CERAMIC CHIP, 50V CH 15PF J    |
| C252         | 24105270  | CERAMIC CHIP, 50V CH 27PF J    |
| C253         | 24105101  | CERAMIC CHIP, 50V CH 100PF J   |
| C254         | 24105820  | CERAMIC CHIP, 50V CH 82PF J    |
| C255         | 24105560  | CERAMIC CHIP, 50V CH 56PF J    |
| C256         | 24105150  | CERAMIC CHIP, 50V CH 15PF J    |
| C257         | 24105270  | CERAMIC CHIP, 50V CH 27PF J    |
| C258         | 24105101  | CERAMIC CHIP, 50V CH 100PF J   |
| C259         | 24105820  | CERAMIC CHIP, 50V CH 82PF J    |
| C260         | 24203100  | ELECTROLYTIC, 16V 10UF M 7L 3A |
| C261         | 24203100  | ELECTROLYTIC, 16V 10UF M 7L 3A |
| C262         | 24100104  | CERAMIC CHIP, 25V F 0.1UF Z    |
| C263         | 24100104  | CERAMIC CHIP, 25V F 0.1UF Z    |
| C264         | 24092441  | CERAMIC CHIP, 16V F 1UF Z      |

| Location No. | Parts No. | Description                         |
|--------------|-----------|-------------------------------------|
| C264         | 24105100  | CERAMIC CHIP, 50V CH 10PF D         |
| C265         | 24105100  | CERAMIC CHIP, 50V CH 10PF D         |
| C266         | 24105100  | CERAMIC CHIP, 50V CH 10PF D         |
| C267         | 24100104  | CERAMIC CHIP, 25V F 0.1UF Z         |
| C268         | 24105101  | CERAMIC CHIP, 50V CH 100PF J        |
| C269         | 24105101  | CERAMIC CHIP, 50V CH 100PF J        |
| C272         | 24100104  | CERAMIC CHIP, 25V F 0.1UF Z         |
| C273         | 24100104  | CERAMIC CHIP, 25V F 0.1UF Z         |
| C301         | 24503053  | PLASTIC FILM, 63V 1UF J             |
| C302         | 24669010  | ELECTROLYTIC, 50V 1UF M 3A          |
| C303         | 24503053  | PLASTIC FILM, 63V 1UF J             |
| C308         | 24567223  | PLASTIC FILM, 50V 0.022UF J         |
| C309         | 24109102  | CERAMIC CHIP, 50V B 1000PF K        |
| C310         | 24073053  | ELECTROLYTIC, 25V 100UF M 3A        |
| C311         | 24109103  | CERAMIC CHIP, 50V B 0.01UF K        |
| C312         | 24109332  | CERAMIC CHIP, 50V B 3300PF K        |
| C314         | 24503037  | MT PLA CAP, 63V 0.047UF J           |
| C315         | 24073020  | ELECTROLYTIC, 10V 1000UF M 3A       |
| C320         | 24669101  | ELECTROLYTIC, 50V 100UF M 3A        |
| C321         | 24669101  | ELECTROLYTIC, 50V 100UF M 3A        |
| C323         | 24109473  | CERAMIC CHIP, 25V B 0.047UF K       |
| C324         | 24503053  | PLASTIC FILM, 63V 1UF J             |
| C325         | 24082057  | PLASTIC FILM, 100V 0.22UF J         |
| C327         | 24092730  | CERAMIC CHIP, 16V B 0.1UF K         |
| C328         | 24082256  | PLASTIC FILM, 100V 2200PF J         |
| C330         | 24073034  | ELECTROLYTIC, 16V 10UF M 3A         |
| C332         | 24669101  | ELECTROLYTIC, 50V 100UF M 3A        |
| C333         | 24082272  | PLASTIC FILM, 100V 0.047UF J        |
| C334         | 24109471  | CERAMIC CHIP, 50V B 470PF K         |
| C338         | 24666100  | ELECTROLYTIC, 10V 10UF M 3A         |
| C340         | 24073037  | ELECTROLYTIC, 16V 47UF M 3A         |
| C361         | 24092730  | CERAMIC CHIP, 16V B 0.1UF K         |
| C362         | 24109473  | CERAMIC CHIP, 25V B 0.047UF K       |
| C370         | 24669229  | ELECTROLYTIC, 50V 2.2UF M 3A        |
| C371         | 24092730  | CERAMIC CHIP, 16V B 0.1UF K         |
| C401         | 24214332  | CERAMIC DISC, 500V B 3300PF K       |
| C402         | 24214391  | CERAMIC DISC, 500V B 390PF K        |
| C405         | 24503041  | PLASTIC FILM , 63V 0.1UF J          |
| C412         | 24828104  | PLASTIC FILM CQ92 T 200V R1UF J     |
| C415         | 24092484  | CERAMIC DISC, 2KV B 1500PF K        |
| C416         | 24676220  | ELECTROLYTIC, 100V 22UF M 3A        |
| C417         | 24503334  | PLASTIC FILM CF92 T 250V 1R5UF J    |
| C419         | 24105331  | CERAMIC CHIP, 50V CH 330PF J        |
| C420         | 24503041  | PLASTIC FILM , 63V 0.1UF J          |
| C422         | 24591102  | PLASTIC FILM, 50V 1000PF J          |
| C423         | 24503252  | PLASTIC FILM, 400V 0.3UF J          |
| C425         | 24503142  | PLASTIC FILM, 400V 0.27UF J         |
| C426         | 24211222  | CERAMIC DISC, 2KV B 2200PFK         |
| C432         | 24567333  | PLASTIC FILM, 50V 33000PF J         |
| C440         | 24503059  | PLASTIC FILM CF92 T 1800VH 1000PF H |
| C443         | 24503195  | PLASTIC FILM, 1800VH 5100PF H       |
| C444         | 24503346  | PLASTIC FILM, 1800VH 3300PF H       |
| C445         | 24828473  | PLASTIC FILM, 200V 0.047UF J        |
| C446         | 24073120  | ELECTRPLYTIC, 250V 33UF, 250YXF33M  |
| C448         | 24073118  | ELECTROLYTIC, 160V 33UF M           |
| C449         | 24214221  | CERAMIC DISC, 500V B 220PF K        |
| C450         | 24073057  | ELECTROLYTIC, 25V 1000UF M 3A       |
| C460         | 24678220  | ELECTROLYTIC, 200V 22UF M           |
| C463         | 24109472  | CERAMIC CHIP, 50V B 4700PF K        |
| C464         | 24503149  | PLASTIC FILM, 250V 3.3UF            |
| C467         | 24820682  | PLASTIC FILM, 630V 6800PF J         |
| C468         | 24820682  | PLASTIC FILM, 630V 6800PF J         |
| C473         | 24503041  | PLASTIC FILM , 63V 0.1UF J          |
| C481         | 24109103  | CERAMIC CHIP, 50V B 0.01UF K        |
| C482         | 24109822  | CERAMIC CHIP, 50V B 8200PF K        |

| Location No. | Parts No. | Description                             |
|--------------|-----------|-----------------------------------------|
| C491         | 24666100  | ELECTROLYTIC, 10V 10UF M 3A             |
| C496         | 24503049  | PLASTIC FILM, 63V 0.47UF J              |
| C499         | 24666220  | ELECTROLYTIC, 16V 22UF M 3A             |
| C513         | 24109103  | CERAMIC CHIP, 50V B 0.01UF K            |
| C515         | 24503041  | PLASTIC FILM , 63V 0.1UF J              |
| C518         | 24666100  | ELECTROLYTIC, 10V 10UF M 3A             |
| C522         | 24100104  | CERAMIC CHIP, 25V F 0.1UF Z             |
| C523         | 24100104  | CERAMIC CHIP, 25V F 0.1UF Z             |
| C524         | 24100104  | CERAMIC CHIP, 25V F 0.1UF Z             |
| C531         | 24666101  | ELECTROLYTIC, 16V 100UF M 3A            |
| C532         | 24666100  | ELECTROLYTIC, 10V 10UF M 3A             |
| C533         | 24100104  | CERAMIC CHIP, 25V F 0.1UF Z             |
| C534         | 24100104  | CERAMIC CHIP, 25V F 0.1UF Z             |
| C535         | 24109103  | CERAMIC CHIP, 50V B 0.01UF K            |
| C536         | 24109103  | CERAMIC CHIP, 50V B 0.01UF K            |
| C537         | 24109103  | CERAMIC CHIP, 50V B 0.01UF K            |
| C538         | 24100104  | CERAMIC CHIP, 25V F 0.1UF Z             |
| C540         | 24092538  | CERAMIC CHIP, 10V F 1UF Z               |
| C541         | 24092538  | CERAMIC CHIP, 10V F 1UF Z               |
| C542         | 24092538  | CERAMIC CHIP, 10V F 1UF Z               |
| C547         | 24109103  | CERAMIC CHIP, 50V B 0.01UF K            |
| C563         | 24797010  | ELECTROLYTIC, 50V 1UF M                 |
| C564         | 24797229  | ELECTROLYTIC, 50V 2.2UF M               |
| C565         | 24100104  | CERAMIC CHIP, 25V F 0.1UF Z             |
| C566         | 24100104  | CERAMIC CHIP, 25V F 0.1UF Z             |
| C567         | 24100104  | CERAMIC CHIP, 25V F 0.1UF Z             |
| C568         | 24100104  | CERAMIC CHIP, 25V F 0.1UF Z             |
| C571         | 24109103  | CERAMIC CHIP, 50V B 0.01UF K            |
| C575         | 24108100  | CERAMIC CHIP, 50V SL 10PF D             |
| C576         | 24108100  | CERAMIC CHIP, 50V SL 10PF D             |
| C577         | 24108100  | CERAMIC CHIP, 50V SL 10PF D             |
| C584         | 24797010  | ELECTROLYTIC, 50V 1UF M                 |
| C585         | 24109103  | CERAMIC CHIP, 50V B 0.01UF K            |
| C601         | 24109102  | CERAMIC CHIP, 50V B 1000PF K            |
| C602         | 24109102  | CERAMIC CHIP, 50V B 1000PF K            |
| C603         | 24669100  | ELECTROLYTIC, 50V 10UF M 3A             |
| C604         | 24669100  | ELECTROLYTIC, 50V 10UF M 3A             |
| C605         | 24667470  | ELECTROLYTIC, 25V 47UF M 3A             |
| C606         | 24667470  | ELECTROLYTIC, 25V 47UF M 3A             |
| C607         | 24503041  | PLASTIC FILM , 63V 0.1UF J              |
| C608         | 24503041  | PLASTIC FILM , 63V 0.1UF J              |
| C609         | 24669102  | ELECTROLYTIC, 50V 1000UF M 3A           |
| C610         | 24669102  | ELECTROLYTIC, 50V 1000UF M 3A           |
| C611         | 24668101  | ELECTROLYTIC, 35V 100UF M 3A            |
| C612         | 24666221  | ELECTROLYTIC, 16V 220UF M 3A            |
| C613         | 24669100  | ELECTROLYTIC, 50V 10UF M 3A             |
| C614         | 24085944  | ELECTROLYTIC, NONPOLAR, 50V 2.2UF M 11L |
| C615         | 24085944  | ELECTROLYTIC, NONPOLAR, 50V 2.2UF M 11L |
| C661         | 24797479  | ELECTROLYTIC, 50V 4.7UF M               |
| C662         | 24797010  | ELECTROLYTIC, 50V 1UF M                 |
| C663         | 24797010  | ELECTROLYTIC, 50V 1UF M                 |
| C665         | 24109103  | CERAMIC CHIP, 50V B 0.01UF K            |
| C666         | 24797479  | ELECTROLYTIC, 50V 4.7UF M               |
| C667         | 24794100  | ELECTROLYTIC, 16V 10UF M                |
| C680         | 24669102  | ELECTROLYTIC, 50V 1000UF M 3A           |
| C681         | 24666100  | ELECTROLYTIC, 10V 10UF M 3A             |
| C682         | 24669229  | ELECTROLYTIC, 50V 2.2UF M 3A            |
| C690         | 24109103  | CERAMIC CHIP, 50V B 0.01UF K            |
| C704         | 24232103  | CERAMIC DISC, 50V F 0.01UF Z            |
| C705         | 24206479  | ELECTROLYTIC, 50V 4.7UF M 7L 3A         |
| C707         | 24797470  | ELECTROLYTIC, 50V 47UF M                |
| C712         | 24797470  | ELECTROLYTIC, 50V 47UF M                |
| C713         | 24790470  | ELECTROLYTIC, 160V 47UF M               |

| Location No. | Parts No. | Description                         |
|--------------|-----------|-------------------------------------|
| C715         | 24214472  | CERAMIC DISC, 500V B 4700PF K       |
| C717         | 24214472  | CERAMIC DISC, 500V B 4700PF K       |
| C718         | 24666470  | ELECTROLYTIC, 16V 47UF M 3A         |
| C719         | 24435560  | CERAMIC DISC, 500V SL 56PF J        |
| C720         | 24790220  | ELECTROLYTIC, 160V 22UF M           |
| C721         | 24666470  | ELECTROLYTIC, 16V 47UF M 3A         |
| C721         | 24073052  | ELECTROLYTIC, 25V 47UF M 3A         |
| C722         | 24073052  | ELECTROLYTIC, 25V 47UF M 3A         |
| C723         | 24109103  | CERAMIC CHIP, 50V B 0.01UF K        |
| C724         | 24109103  | CERAMIC CHIP, 50V B 0.01UF K        |
| C726         | 24212102  | CERAMIC DISC, 50V B 1000PF K        |
| C760         | 24797470  | ELECTROLYTIC, 50V 47UF M            |
| C761         | 24212102  | CERAMIC DISC, 50V B 1000PF K        |
| C762         | 24797470  | ELECTROLYTIC, 50V 47UF M            |
| C765         | 24214472  | CERAMIC DISC, 500V B 4700PF K       |
| C766         | 24214472  | CERAMIC DISC, 500V B 4700PF K       |
| C767         | 24790470  | ELECTROLYTIC, 160V 47UF M           |
| C768         | 24666470  | ELECTROLYTIC, 16V 47UF M 3A         |
| C769         | 24666470  | ELECTROLYTIC, 16V 47UF M 3A         |
| C770         | 24435560  | CERAMIC DISC, 500V SL 56PF J        |
| C771         | 24790220  | ELECTROLYTIC, 160V 22UF M           |
| C780         | 24797470  | ELECTROLYTIC, 50V 47UF M            |
| C781         | 24212102  | CERAMIC DISC, 50V B 1000PF K        |
| C782         | 24797470  | ELECTROLYTIC, 50V 47UF M            |
| C784         | 24214472  | CERAMIC DISC, 500V B 4700PF K       |
| C786         | 24214472  | CERAMIC DISC, 500V B 4700PF K       |
| C787         | 24790470  | ELECTROLYTIC, 160V 47UF M           |
| C788         | 24666470  | ELECTROLYTIC, 16V 47UF M 3A         |
| C789         | 24666470  | ELECTROLYTIC, 16V 47UF M 3A         |
| C790         | 24435560  | CERAMIC DISC, 500V SL 56PF J        |
| C791         | 24790220  | ELECTROLYTIC, 160V 22UF M           |
| C801         | 24203101  | ELECTROLYTIC, 16V 100UF M 7L 3A     |
| C801         | 24503002  | PLASTIC FILM, AC275V 0.22UF M       |
| C802         | 24503002  | PLASTIC FILM, AC275V 0.22UF M       |
| C802         | 24203100  | ELECTROLYTIC, 16V 10UF M 7L 3A      |
| C803         | 24100104  | CERAMIC CHIP, 25V F 0.1UF Z         |
| C804         | 24617033  | ELECTROLYTIC 04CH, 25V 4.7UF M      |
| C805         | 24092281  | CERAMIC DISC, AC250V E 4700PF       |
| C805         | 24203100  | ELECTROLYTIC, 16V 10UF M 7L 3A      |
| C806         | 24100104  | CERAMIC CHIP, 25V F 0.1UF Z         |
| C809         | 24086067  | ELECTROLYTIC 692Q, 200V 1000UF M 3F |
| C810         | 24086067  | ELECTROLYTIC 692Q, 200V 1000UF M 3F |
| C811         | 24092597  | CERAMIC DISC CK45E AC250V 4700PF M  |
| C812         | 24092597  | CERAMIC DISC CK45E AC250V 4700PF M  |
| C813         | 24092597  | CERAMIC DISC CK45E AC250V 4700PF M  |
| C826         | 24503047  | PLASTIC FILM, 63V 0.33UF J          |
| C827         | 24073037  | ELECTROLYTIC, 16V 47UF M 3A         |
| C829         | 24503041  | PLASTIC FILM, 63V 0.1UF J           |
| C830         | 24073037  | ELECTROLYTIC, 16V 47UF M 3A         |
| C831         | 24503047  | PLASTIC FILM, 63V 0.33UF J          |
| C832         | 24073038  | ELECTROLYTIC, 16V 100UF M 3A        |
| C833         | 24073037  | ELECTROLYTIC, 16V 47UF M 3A         |
| C834         | 24503047  | PLASTIC FILM, 63V 0.33UF J          |
| C835         | 24073016  | ELECTROLYTIC CE04P, 10V 100UF M 3A  |
| C836         | 24617043  | ELECTROLYTIC 04CH, 35V 1000UF M     |
| C837         | 24214221  | CERAMIC DISC, 500V B 220PF K        |
| C838         | 24617006  | ELECTROLYTIC, 25V 820UF M           |
| C839         | 24503041  | PLASTIC FILM, 63V 0.1UF J           |
| C849         | 24666101  | ELECTROLYTIC, 16V 100UF M 3A        |
| C850         | 24668222  | ELECTROLYTIC, 35V 2200UF M 3A       |
| C851         | 24668222  | ELECTROLYTIC, 35V 2200UF M 3A       |
| C852         | 24073094  | ELECTROLYTIC, 50V 1000UF M 3A       |
| C853         | 24669331  | ELECTROLYTIC, 50V 330UF M 3A        |
| C860         | 24214103  | CERAMIC DISC, 500V B 0.01UF K       |
| C861         | 24214103  | CERAMIC DISC, 500V B 0.01UF K       |

| Location No. | Parts No. | Description                    |
|--------------|-----------|--------------------------------|
| C862         | 24092341  | CERAMIC DISC, 2KV R 470PF K    |
| C863         | 24503045  | PLASTIC FILM, 63V 0.22UF J     |
| C866         | 24503053  | PLASTIC FILM, 63V 1UF J        |
| C867         | 24591472  | PLASTIC FILM, 50V 4700PF J     |
| C868         | 24669470  | ELECTROLYTIC, 50V 47UF M 3A    |
| C869         | 24678229  | ELECTROLYTIC, 200V 2.2UF M 3A  |
| C870         | 24503355  | PLASTIC FILM, 800V 0.1UF J     |
| C871         | 24092343  | CERAMIC DISC, 2KV 680PF K      |
| C873         | 24503045  | PLASTIC FILM, 63V 0.22UF J     |
| C874         | 24092337  | CERAMIC DISC, 2KV 220PF K      |
| C876         | 24503049  | PLASTIC FILM, 63V 0.47UF J     |
| C877         | 24092344  | CERAMIC DISC, 2KV 820PF K      |
| C879         | 24214102  | CERAMIC DISC, 500V B 1000PF K  |
| C880         | 24092339  | CERAMIC DISC, 2KV 330PF K      |
| C881         | 24092339  | CERAMIC DISC, 2KV 330PF K      |
| C882         | 24092339  | CERAMIC DISC, 2KV 330PF K      |
| C883         | 24092339  | CERAMIC DISC, 2KV 330PF K      |
| C884         | 24086916  | ELECTROLYTIC, 160V 330UF M 3D  |
| C885         | 24073095  | ELECTROLYTIC, 50V 2200UF M 3A  |
| C886         | 24591152  | PLASTIC FILM, 50V 1500PF J     |
| C887         | 24678478  | ELECTROLYTIC, 200V 0.47UF M 3A |
| C888         | 24082229  | PLASTIC FILM, 250V 0.1UF D     |
| C891         | 24214471  | CERAMIC DISC, 500V B 470PF K   |
| C892         | 24214471  | CERAMIC DISC, 500V B 470PF K   |
| C893         | 24073060  | ELECTROLYTIC, 25V 4700UF M 3A  |
| C894         | 24073060  | ELECTROLYTIC, 25V 4700UF M 3A  |
| C898         | 24503041  | PLASTIC FILM, 63V 0.1UF J      |
| C901         | 24211102  | CERAMIC DISC, 2KV B 1000PF K   |
| C902         | 24794101  | ELECTROLYTIC, 16V 100UF M      |
| C903         | 24232103  | CERAMIC DISC, 50V F 0.01UF Z   |
| C904         | 24436221  | CERAMIC DISC, 50V SL 220PF J   |
| C906         | 24679220  | ELECTROLYTIC, 250V 22UF M 3A   |
| C907         | 24214101  | CERAMIC DISC, 500V B 100PF K   |
| C911         | 24211102  | CERAMIC DISC, 2KV B 1000PF K   |
| C912         | 24794101  | ELECTROLYTIC, 16V 100UF M      |
| C913         | 24232103  | CERAMIC DISC, 50V F 0.01UF Z   |
| C914         | 24436221  | CERAMIC DISC, 50V SL 220PF J   |
| C915         | 24679220  | ELECTROLYTIC, 250V 22UF M 3A   |
| C917         | 24214101  | CERAMIC DISC, 500V B 100PF K   |
| C921         | 24211102  | CERAMIC DISC, 2KV B 1000PF K   |
| C922         | 24794101  | ELECTROLYTIC, 16V 100UF M      |
| C923         | 24436221  | CERAMIC DISC, 50V SL 220PF J   |
| C924         | 24232103  | CERAMIC DISC, 50V F 0.01UF Z   |
| C925         | 24679220  | ELECTROLYTIC, 250V 22UF M 3A   |
| C926         | 24214101  | CERAMIC DISC, 500V B 100PF K   |
| C930         | 24214103  | CERAMIC DISC, 500V B 0.01UF K  |
| C935         | 24214103  | CERAMIC DISC, 500V B 0.01UF K  |
| C936         | 24214103  | CERAMIC DISC, 500V B 0.01UF K  |
| C961         | 24763102  | ELECTROLYTIC, 16V 1000UF M     |
| C962         | 24203100  | ELECTROLYTIC, 16V 10UF M 7L 3A |
| C967         | 24436471  | CERAMIC DISC, 50V SL 470PF J   |
| C2020        | 24109103  | CERAMIC CHIP, 50V B 0.01UF K   |
| C2102        | 24108100  | CERAMIC CHIP, 50V SL 10PF D    |
| C2103        | 24108100  | CERAMIC CHIP, 50V SL 10PF D    |
| C2104        | 24108100  | CERAMIC CHIP, 50V SL 10PF D    |
| C2110        | 24109103  | CERAMIC CHIP, 50V B 0.01UF K   |
| C2111        | 24763101  | ELECTROLYTIC, 16V 100UF M      |
| C2112        | 24109103  | CERAMIC CHIP, 50V B 0.01UF K   |
| C2113        | 24092731  | CERAMIC CHIP, 16V B 1UF K      |
| C3110        | 24092730  | CERAMIC CHIP, 16V B 0.1UF K    |
| C4401        | 24073039  | ELECTROLYTIC, 16V 220UF M 3A   |
| C4402        | 24109103  | CERAMIC CHIP, 50V B 0.01UF K   |
| C4403        | 24073081  | ELECTROLYTIC, 50V 1.0UF M 3A   |
| C4404        | 24109103  | CERAMIC CHIP, 50V B 0.01UF K   |
| C4405        | 24100104  | CERAMIC CHIP, 25V F 0.1UF Z    |

| Location No. | Parts No. | Description                   |
|--------------|-----------|-------------------------------|
| C4406        | 24109103  | CERAMIC CHIP, 50V B 0.01UF K  |
| C4407        | 24073039  | ELECTROLYTIC, 16V 220UF M 3A  |
| C4420        | 24109103  | CERAMIC CHIP, 50V B 0.01UF K  |
| C4430        | 24073034  | ELECTROLYTIC, 16V 10UF M 3A   |
| C4603        | 24109471  | CERAMIC CHIP, 50V B 470PF K   |
| C4702        | 24109223  | CERAMIC CHIP, 25V B 0.022UF K |
| C4703        | 24073082  | ELECTROLYTIC, 50V 2.2UF M 3A  |
| C4704        | 24092753  | CERAMIC CHIP, 10V B 0.22UF K  |
| C4705        | 24073082  | ELECTROLYTIC, 50V 2.2UF M 3A  |
| C4706        | 24109221  | CERAMIC CHIP, 50V B 220PF K   |
| C4707        | 24092730  | CERAMIC CHIP, 16V B 0.1UF K   |
| C4708        | 24073041  | ELECTROLYTIC, 16V 470UF M 3A  |
| C4709        | 24109103  | CERAMIC CHIP, 50V B 0.01UF K  |
| C4710        | 24109103  | CERAMIC CHIP, 50V B 0.01UF K  |
| C4711        | 24109103  | CERAMIC CHIP, 50V B 0.01UF K  |
| C4712        | 24109103  | CERAMIC CHIP, 50V B 0.01UF K  |
| C4713        | 24109103  | CERAMIC CHIP, 50V B 0.01UF K  |
| C4714        | 24109103  | CERAMIC CHIP, 50V B 0.01UF K  |
| C4715        | 24109103  | CERAMIC CHIP, 50V B 0.01UF K  |
| C4716        | 24092730  | CERAMIC CHIP, 16V B 0.1UF K   |
| C4717        | 24073038  | ELECTROLYTIC, 16V 100UF M 3A  |
| C5020        | 24109103  | CERAMIC CHIP, 50V B 0.01UF K  |
| C5030        | 24763101  | ELECTROLYTIC, 16V 100UF M     |
| C5080        | 24797010  | ELECTROLYTIC, 50V 1UF M       |
| C5090        | 24763101  | ELECTROLYTIC, 16V 100UF M     |
| C5140        | 24666100  | ELECTROLYTIC, 10V 10UF M 3A   |
| C7701        | 24567334  | PLASTIC FILM, 50V 0.33UF J    |
| C7704        | 24073053  | ELECTROLYTIC, 25V 100UF M 3A  |
| C7705        | 24073053  | ELECTROLYTIC, 25V 100UF M 3A  |
| C7706        | 24567334  | PLASTIC FILM, 50V 0.33UF J    |
| C7721        | 24105102  | CERAMIC CHIP, 25V CH 1000PF J |
| C7722        | 24105331  | CERAMIC CHIP, 50V CH 330PF J  |
| C7724        | 24073090  | ELECTROLYTIC, 50V 100UF M 3A  |
| C7725        | 24073090  | ELECTROLYTIC, 50V 100UF M 3A  |
| C7726        | 24105102  | CERAMIC CHIP, 25V CH 1000PF J |
| C7727        | 24105331  | CERAMIC CHIP, 50V CH 330PF J  |
| C7729        | 24105102  | CERAMIC CHIP, 25V CH 1000PF J |
| C7730        | 24105331  | CERAMIC CHIP, 50V CH 330PF J  |
| C7732        | 24105102  | CERAMIC CHIP, 25V CH 1000PF J |
| C7733        | 24105331  | CERAMIC CHIP, 50V CH 330PF J  |
| C7735        | 24073090  | ELECTROLYTIC, 50V 100UF M 3A  |
| C7736        | 24073090  | ELECTROLYTIC, 50V 100UF M 3A  |
| C7737        | 24105102  | CERAMIC CHIP, 25V CH 1000PF J |
| C7738        | 24105331  | CERAMIC CHIP, 50V CH 330PF J  |
| C7740        | 24105102  | CERAMIC CHIP, 25V CH 1000PF J |
| C7741        | 24105331  | CERAMIC CHIP, 50V CH 330PF J  |
| C7766        | 24667221  | ELECTROLYTIC, 25V 220UF M 3A  |
| C7769        | 24109103  | CERAMIC CHIP, 50V B 0.01UF K  |
| C7774        | 24092730  | CERAMIC CHIP, 16V B 0.1UF K   |
| C7775        | 24092730  | CERAMIC CHIP, 16V B 0.1UF K   |
| C7776        | 24092730  | CERAMIC CHIP, 16V B 0.1UF K   |
| C7777        | 24092730  | CERAMIC CHIP, 16V B 0.1UF K   |
| C7779        | 24105331  | CERAMIC CHIP, 50V CH 330PF J  |
| C7780        | 24436471  | CERAMIC DISC, 50V SL 470PF J  |
| C7783        | 24436471  | CERAMIC DISC, 50V SL 470PF J  |
| C7788        | 24353101  | CERAMIC DISC, 50V CH 100PF J  |
| C7789        | 24591472  | PLASTIC FILM, 50V 4700PF J    |
| C7791        | 24073056  | ELECTROLYTIC, 25V 470UF M 3A  |
| C7792        | 24591472  | PLASTIC FILM, 50V 4700PF J    |
| C7793        | 24567104  | PLASTIC FILM, 50V 0.1UF J     |
| C7794        | 24567104  | PLASTIC FILM, 50V 0.1UF J     |
| C7795        | 24591222  | PLASTIC FILM, 50V 2200PF J    |
| C7796        | 24073091  | ELECTROLYTIC, 50V 220UF M 3A  |
| C7797        | 24073094  | ELECTROLYTIC, 50V 1000UF M 3A |
| C7798        | 24073091  | ELECTROLYTIC, 50V 220UF M 3A  |

| Location No. | Parts No. | Description                           |
|--------------|-----------|---------------------------------------|
| C7810        | 24092511  | CERAMIC CHIP, 50V CH 470PF B          |
| C7811        | 24105561  | CERAMIC CHIP, 50V CH 560PF J          |
| C7813        | 24667101  | ELECTROLYTIC, 25V 100UF M 3A          |
| C7817        | 24591332  | PLASTIC FILM, 50V 3300PF J            |
| C7818        | 24591102  | PLASTIC FILM, 50V 1000PF J            |
| C7819        | 24591102  | PLASTIC FILM, 50V 1000PF J            |
| C7820        | 24591222  | PLASTIC FILM, 50V 2200PF J            |
| C7821        | 24669010  | ELECTROLYTIC, 50V 1UF M 3A            |
| C7822        | 24503053  | PLASTIC FILM, 63V 1UF J               |
| C9100        | 24436471  | CERAMIC DISC, 50V SL 470PF J          |
| C9200        | 24436471  | CERAMIC DISC, 50V SL 470PF J          |
| CA04         | 24109103  | CERAMIC CHIP, 50V B 0.01UF K          |
| CA05         | 24109103  | CERAMIC CHIP, 50V B 0.01UF K          |
| CA06         | 24109392  | CERAMIC CHIP, 50V B 3900PF K          |
| CA07         | 24109392  | CERAMIC CHIP, 50V B 3900PF K          |
| CA08         | 24109103  | CERAMIC CHIP, 50V B 0.01UF K          |
| CA09         | 24109103  | CERAMIC CHIP, 50V B 0.01UF K          |
| CA10         | 24105101  | CERAMIC CHIP, 50V CH 100PF J          |
| CA14         | 24109103  | CERAMIC CHIP, 50V B 0.01UF K          |
| CA15         | 24109103  | CERAMIC CHIP, 50V B 0.01UF K          |
| CA22         | 24105101  | CERAMIC CHIP, 50V CH 100PF J          |
| CA23         | 24105101  | CERAMIC CHIP, 50V CH 100PF J          |
| CA24         | 24109103  | CERAMIC CHIP, 50V B 0.01UF K          |
| CA25         | 24100103  | CERAMIC CHIP, 50V F 0.01UF Z          |
| CA27         | 24092538  | CERAMIC CHIP, 10V F 1UF Z             |
| CA28         | 24085970  | ELECTROLYTIC, NONPOLAR, 16V 10UF M 7L |
| CA30         | 24085970  | ELECTROLYTIC, NONPOLAR, 16V 10UF M 7L |
| CA31         | 24092538  | CERAMIC CHIP, 10V F 1UF Z             |
| CA33         | 24100103  | CERAMIC CHIP, 50V F 0.01UF Z          |
| CA34         | 24092538  | CERAMIC CHIP, 10V F 1UF Z             |
| CA37         | 24105101  | CERAMIC CHIP, 50V CH 100PF J          |
| CA38         | 24105101  | CERAMIC CHIP, 50V CH 100PF J          |
| CA39         | 24105101  | CERAMIC CHIP, 50V CH 100PF J          |
| CA42         | 24109392  | CERAMIC CHIP, 50V B 3900PF K          |
| CA45         | 24105471  | CERAMIC CHIP, 50V CH 470PF J          |
| CA46         | 24105471  | CERAMIC CHIP, 50V CH 470PF J          |
| CA49         | 24105101  | CERAMIC CHIP, 50V CH 100PF J          |
| CA52         | 24109103  | CERAMIC CHIP, 50V B 0.01UF K          |
| CA53         | 24109103  | CERAMIC CHIP, 50V B 0.01UF K          |
| CA54         | 24092730  | CERAMIC CHIP, 16V B 0.1UF K           |
| CA55         | 24105101  | CERAMIC CHIP, 50V CH 100PF J          |
| CA59         | 24105101  | CERAMIC CHIP, 50V CH 100PF J          |
| CA60         | 24105101  | CERAMIC CHIP, 50V CH 100PF J          |
| CA61         | 24666220  | ELECTROLYTIC, 16V 22UF M 3A           |
| CA68         | 24666100  | ELECTROLYTIC, 10V 10UF M 3A           |
| CA69         | 24109103  | CERAMIC CHIP, 50V B 0.01UF K          |
| CA71         | 24105331  | CERAMIC CHIP, 50V CH 330PF J          |
| CA72         | 24085970  | ELECTROLYTIC, NONPOLAR, 16V 10UF M 7L |
| CA73         | 24666100  | ELECTROLYTIC, 10V 10UF M 3A           |
| CA80         | 24503041  | PLASTIC FILM, 63V 0.1UF J             |
| CA81         | 24073015  | ELECTROLYTIC, 10V 47UF M 3A           |
| CA82         | 24503049  | PLASTIC FILM, 63V 0.47UF J            |
| CA251        | 24073015  | ELECTROLYTIC, 10V 47UF M 3A           |
| CA331        | 24073015  | ELECTROLYTIC, 10V 47UF M 3A           |
| CA371        | 24105820  | CERAMIC CHIP, 50V CH 82PF J           |
| CA381        | 24105820  | CERAMIC CHIP, 50V CH 82PF J           |
| CA391        | 24105820  | CERAMIC CHIP, 50V CH 82PF J           |
| CA611        | 24109103  | CERAMIC CHIP, 50V B 0.01UF K          |
| CA701        | 24092538  | CERAMIC CHIP, 10V F 1UF Z             |
| CA705        | 24666100  | ELECTROLYTIC, 10V 10UF M 3A           |
| CB01         | 24794470  | ELECTROLYTIC, 16V 47UF M              |
| CB05         | 24666100  | ELECTROLYTIC, 10V 10UF M 3A           |
| CB13         | 24085970  | ELECTROLYTIC, NONPOLAR, 16V 10UF M 7L |
| CB14         | 24105331  | CERAMIC CHIP, 50V CH 330PF J          |
| CB15         | 24794100  | ELECTROLYTIC, 16V 10UF M              |

| Location No. | Parts No. | Description                     |
|--------------|-----------|---------------------------------|
| CB40         | 24092538  | CERAMIC CHIP, 10V F 1UF Z       |
| CB41         | 24109222  | CERAMIC CHIP, 50V B 2200PF K    |
| CB42         | 24105561  | CERAMIC CHIP, 50V CH 560PF J    |
| CB43         | 24109332  | CERAMIC CHIP, 50V B 3300PF K    |
| CB45         | 24092538  | CERAMIC CHIP, 10V F 1UF Z       |
| CB46         | 24109222  | CERAMIC CHIP, 50V B 2200PF K    |
| CB47         | 24105561  | CERAMIC CHIP, 50V CH 560PF J    |
| CB51         | 24590103  | PLASTIC FILM, 50V 0.01UF J      |
| CB52         | 24794470  | ELECTROLYTIC, 16V 47UF M        |
| CB53         | 24503041  | PLASTIC FILM, 63V 0.1UF J       |
| CB54         | 24436221  | CERAMIC DISC, 50V SL 220PF J    |
| CB55         | 24797010  | ELECTROLYTIC, 50V 1UF M         |
| CB56         | 24794470  | ELECTROLYTIC, 16V 47UF M        |
| CB58         | 24794470  | ELECTROLYTIC, 16V 47UF M        |
| CB59         | 24590103  | PLASTIC FILM, 50V 0.01UF J      |
| CB60         | 24794100  | ELECTROLYTIC, 16V 10UF M        |
| CB61         | 24503041  | PLASTIC FILM, 63V 0.1UF J       |
| CB62         | 24105331  | CERAMIC CHIP, 50V CH 330PF J    |
| CB90         | 24109103  | CERAMIC CHIP, 50V B 0.01UF K    |
| CB91         | 24666100  | ELECTROLYTIC, 10V 10UF M 3A     |
| CB501        | 24092730  | CERAMIC CHIP, 16V B 0.1UF K     |
| CB502        | 24666100  | ELECTROLYTIC, 10V 10UF M 3A     |
| CB503        | 24092730  | CERAMIC CHIP, 16V B 0.1UF K     |
| CB504        | 24666100  | ELECTROLYTIC, 10V 10UF M 3A     |
| CC01         | 24109102  | CERAMIC CHIP, 50V B 1000PF K    |
| CC01         | 24203100  | ELECTROLYTIC, 16V 10UF M 7L 3A  |
| CC02         | 24100104  | CERAMIC CHIP, 25V F 0.1UF Z     |
| CC02         | 24109102  | CERAMIC CHIP, 50V B 1000PF K    |
| CC03         | 24109102  | CERAMIC CHIP, 50V B 1000PF K    |
| CC03         | 24203100  | ELECTROLYTIC, 16V 10UF M 7L 3A  |
| CC04         | 24100104  | CERAMIC CHIP, 25V F 0.1UF Z     |
| CC04         | 24109102  | CERAMIC CHIP, 50V B 1000PF K    |
| CC05         | 24109102  | CERAMIC CHIP, 50V B 1000PF K    |
| CC06         | 24109102  | CERAMIC CHIP, 50V B 1000PF K    |
| CC07         | 24109102  | CERAMIC CHIP, 50V B 1000PF K    |
| CC08         | 24109102  | CERAMIC CHIP, 50V B 1000PF K    |
| CC11         | 24109102  | CERAMIC CHIP, 50V B 1000PF K    |
| CC12         | 24109102  | CERAMIC CHIP, 50V B 1000PF K    |
| CC20         | 24092730  | CERAMIC CHIP, 16V B 0.1UF K     |
| CC21         | 24619102  | ELECTROLYTIC, 16V 47UF M        |
| CC40         | 24619102  | ELECTROLYTIC, 16V 47UF M        |
| CC42         | 24092730  | CERAMIC CHIP, 16V B 0.1UF K     |
| CC43         | 24092730  | CERAMIC CHIP, 16V B 0.1UF K     |
| CE01         | 24086061  | ELECTROLYTIC, 200V 470UF M 3F   |
| CE02         | 24092281  | CERAMIC DISC, AC250V E 4700PF   |
| CE03         | 24092281  | CERAMIC DISC, AC250V E 4700PF   |
| CE04         | 24092339  | CERAMIC DISC, 2KV 330PF K       |
| CE05         | 24095939  | PLASTIC FILM, 1250VH 1000PF J   |
| CE06         | 24212221  | CERAMIC DISC, 50V B 220PF K     |
| CE07         | 24503041  | PLASTIC FILM, 63V 0.1UF J       |
| CE08         | 24820153  | PLASTIC FILM, 630V 0.015UF J    |
| CE10         | 24669470  | ELECTROLYTIC, 50V 47UF M 3A     |
| CE11         | 24591681  | PLASTIC FILM, 50V 680PF J       |
| CE12         | 24214222  | CERAMIC DISC, 500V B 2200PF K   |
| CE13         | 24591563  | PLASTIC FILM, 50V 0.056UF J     |
| CE14         | 24666470  | ELECTROLYTIC, 16V 47UF M 3A     |
| CE15         | 24591103  | PLASTIC FILM, 50V 0.01UF J      |
| CE16         | 24092583  | CERAMIC DISC, AC250V E 2200PF M |
| CE17         | 24092583  | CERAMIC DISC, AC250V E 2200PF M |
| CE21         | 24503041  | PLASTIC FILM, 63V 0.1UF J       |
| CE30         | 24617043  | ELECTROLYTIC 04CH, 35V 1000UF M |
| CE31         | 24214221  | CERAMIC DISC, 500V B 220PF K    |
| CE32         | 24539104  | PLASTIC FILM, 50V 0.1UF J       |
| CE33         | 24617030  | ELECTROLYTIC, 16V 2200UF M      |
| CE34         | 24539104  | PLASTIC FILM, 50V 0.1UF J       |

| Location No. | Parts No. | Description                     |
|--------------|-----------|---------------------------------|
| CE35         | 24617015  | ELECTROLYTIC 04CH, 10V 2200UF M |
| CE36         | 24794101  | ELECTROLYTIC, 16V 100UF M       |
| CE37         | 24567334  | PLASTIC FILM, 50V 0.33UF J      |
| CE38         | 24794470  | ELECTROLYTIC, 16V 47UF M        |
| CE39         | 24669339  | ELECTROLYTIC, 50V 3.3UF M       |
| CE41         | 24503047  | PLASTIC FILM, 63V 0.33UF J      |
| CE42         | 24666470  | ELECTROLYTIC, 16V 47UF M 3A     |
| CE43         | 24794470  | ELECTROLYTIC, 16V 47UF M        |
| CE44         | 24567334  | PLASTIC FILM, 50V 0.33UF J      |
| CE45         | 24794470  | ELECTROLYTIC, 16V 47UF M        |
| CE46         | 24567104  | PLASTIC FILM, 50V 0.1UF J       |
| CE47         | 24666220  | ELECTROLYTIC, 16V 22UF M 3A     |
| CE50         | 24617044  | ELECTROLYTIC, 35V 2200UF M      |
| CE51         | 24214221  | CERAMIC DISC, 500V B 220PF K    |
| CE52         | 24539104  | PLASTIC FILM, 50V 0.1UF J       |
| CE53         | 24617040  | ELECTROLYTIC, 25V 1000UF M 3D   |
| CE54         | 24539104  | PLASTIC FILM, 50V 0.1UF J       |
| CE55         | 24617040  | ELECTROLYTIC, 25V 1000UF M 3D   |
| CE56         | 24539104  | PLASTIC FILM, 50V 0.1UF J       |
| CE57         | 24666220  | ELECTROLYTIC, 16V 22UF M 3A     |
| CE58         | 24669100  | ELECTROLYTIC, 50V 10UF M 3A     |
| CE59         | 24212101  | CERAMIC DISC, 50V B 100PF K     |
| CE62         | 24676470  | ELECTROLYTIC, 100V 47UF M 3A    |
| CE71         | 24214471  | CERAMIC DISC, 500V B 470PF K    |
| CE72         | 24617044  | ELECTROLYTIC, 35V 2200UF M      |
| CE81         | 24214471  | CERAMIC DISC, 500V B 470PF K    |
| CE82         | 24073057  | ELECTROLYTIC, 25V 1000UF M 3A   |
| CE91         | 24214471  | CERAMIC DISC, 500V B 470PF K    |
| CE92         | 24073094  | ELECTROLYTIC, 50V 1000UF M 3A   |
| CG1          | 24619030  | CHIP CHEMICON, 6.3V 470M        |
| CG2          | 24092178  | CERAMIC CHIP, 25V B 0.1UF K     |
| CG3          | 24619030  | CHIP CHEMICON, 6.3V 470M        |
| CG4          | 24092178  | CERAMIC CHIP, 25V B 0.1UF K     |
| CG5          | 24100102  | CERAMIC CHIP, 50V F 1000PF Z    |
| CG6          | 24100102  | CERAMIC CHIP, 50V F 1000PF Z    |
| CG8          | 24619040  | ELEC. CHIP, 16V 10UF M 3A       |
| CG9          | 24619040  | ELEC. CHIP, 16V 10UF M 3A       |
| CG10         | 24619040  | ELEC. CHIP, 16V 10UF M 3A       |
| CG11         | 24100104  | CERAMIC CHIP, 25V F 0.1UF Z     |
| CG12         | 24100104  | CERAMIC CHIP, 25V F 0.1UF Z     |
| CG13         | 24100104  | CERAMIC CHIP, 25V F 0.1UF Z     |
| CG14         | 24100104  | CERAMIC CHIP, 25V F 0.1UF Z     |
| CG30         | 24619040  | ELEC. CHIP, 16V 10UF M 3A       |
| CG31         | 24100104  | CERAMIC CHIP, 25V F 0.1UF Z     |
| CG32         | 24619040  | ELEC. CHIP, 16V 10UF M 3A       |
| CG33         | 24100104  | CERAMIC CHIP, 25V F 0.1UF Z     |
| CG34         | 24100104  | CERAMIC CHIP, 25V F 0.1UF Z     |
| CG35         | 24619040  | ELEC. CHIP, 16V 10UF M 3A       |
| CG36         | 24100104  | CERAMIC CHIP, 25V F 0.1UF Z     |
| CG37         | 24100104  | CERAMIC CHIP, 25V F 0.1UF Z     |
| CG38         | 24619040  | ELEC. CHIP, 16V 10UF M 3A       |
| CG39         | 24100104  | CERAMIC CHIP, 25V F 0.1UF Z     |
| CG43         | 24619030  | CHIP CHEMICON, 6.3V 470M        |
| CG44         | 24100104  | CERAMIC CHIP, 25V F 0.1UF Z     |
| CG45         | 24100104  | CERAMIC CHIP, 25V F 0.1UF Z     |
| CG46         | 24619030  | CHIP CHEMICON, 6.3V 470M        |
| CG47         | 24100104  | CERAMIC CHIP, 25V F 0.1UF Z     |
| CG48         | 24100104  | CERAMIC CHIP, 25V F 0.1UF Z     |
| CG49         | 24092178  | CERAMIC CHIP, 25V B 0.1UF K     |
| CG50         | 24092178  | CERAMIC CHIP, 25V B 0.1UF K     |
| CG51         | 24619030  | CHIP CHEMICON, 6.3V 470M        |
| CG52         | 24100104  | CERAMIC CHIP, 25V F 0.1UF Z     |
| CG53         | 24100104  | CERAMIC CHIP, 25V F 0.1UF Z     |
| CG54         | 24092178  | CERAMIC CHIP, 25V B 0.1UF K     |
| CG55         | 24092178  | CERAMIC CHIP, 25V B 0.1UF K     |

| Location No. | Parts No. | Description                      |
|--------------|-----------|----------------------------------|
| CG56         | 24619030  | CHIP CHEMICON, 6.3V 470M         |
| CG57         | 24100104  | CERAMIC CHIP, 25V F 0.1UF Z      |
| CG58         | 24100104  | CERAMIC CHIP, 25V F 0.1UF Z      |
| CG59         | 24092178  | CERAMIC CHIP, 25V B 0.1UF K      |
| CG60         | 24092178  | CERAMIC CHIP, 25V B 0.1UF K      |
| CG61         | 24619030  | CHIP CHEMICON, 6.3V 470M         |
| CG62         | 24100104  | CERAMIC CHIP, 25V F 0.1UF Z      |
| CG63         | 24100104  | CERAMIC CHIP, 25V F 0.1UF Z      |
| CG64         | 24092178  | CERAMIC CHIP, 25V B 0.1UF K      |
| CG65         | 24092178  | CERAMIC CHIP, 25V B 0.1UF K      |
| CG66         | 24619030  | CHIP CHEMICON, 6.3V 470M         |
| CG67         | 24100104  | CERAMIC CHIP, 25V F 0.1UF Z      |
| CG68         | 24100104  | CERAMIC CHIP, 25V F 0.1UF Z      |
| CG69         | 24100104  | CERAMIC CHIP, 25V F 0.1UF Z      |
| CG70         | 24100104  | CERAMIC CHIP, 25V F 0.1UF Z      |
| CG71         | 24100104  | CERAMIC CHIP, 25V F 0.1UF Z      |
| CG72         | 24100104  | CERAMIC CHIP, 25V F 0.1UF Z      |
| CG73         | 24100104  | CERAMIC CHIP, 25V F 0.1UF Z      |
| CG74         | 24105150  | CERAMIC CHIP, 50V CH 15PF J      |
| CG75         | 24105150  | CERAMIC CHIP, 50V CH 15PF J      |
| CG76         | 24619030  | CHIP CHEMICON, 6.3V 470M         |
| CG77         | 24100104  | CERAMIC CHIP, 25V F 0.1UF Z      |
| CG78         | 24100104  | CERAMIC CHIP, 25V F 0.1UF Z      |
| CG79         | 24100104  | CERAMIC CHIP, 25V F 0.1UF Z      |
| CG80         | 24100104  | CERAMIC CHIP, 25V F 0.1UF Z      |
| CG81         | 24100104  | CERAMIC CHIP, 25V F 0.1UF Z      |
| CG82         | 24100104  | CERAMIC CHIP, 25V F 0.1UF Z      |
| CG83         | 24100104  | CERAMIC CHIP, 25V F 0.1UF Z      |
| CG84         | 24100104  | CERAMIC CHIP, 25V F 0.1UF Z      |
| CG85         | 24100104  | CERAMIC CHIP, 25V F 0.1UF Z      |
| CG86         | 24619030  | CHIP CHEMICON, 6.3V 470M         |
| CG88         | 24092178  | CERAMIC CHIP, 25V B 0.1UF K      |
| CG89         | 24619030  | CHIP CHEMICON, 6.3V 470M         |
| CG91         | 24100104  | CERAMIC CHIP, 25V F 0.1UF Z      |
| CG92         | 24619046  | ELECTROLYTIC, 16V 470UF          |
| CG93         | 24105101  | CERAMIC CHIP, 50V CH 100PF J     |
| CG97         | 24100102  | CERAMIC CHIP, 50V F 1000PF Z     |
| CG98         | 24100104  | CERAMIC CHIP, 25V F 0.1UF Z      |
| CG99         | 24105101  | CERAMIC CHIP, 50V CH 100PF J     |
| CG100        | 24105101  | CERAMIC CHIP, 50V CH 100PF J     |
| CG104        | 24100104  | CERAMIC CHIP, 25V F 0.1UF Z      |
| CG105        | 24100104  | CERAMIC CHIP, 25V F 0.1UF Z      |
| CG106        | 24105101  | CERAMIC CHIP, 50V CH 100PF J     |
| CG113        | 24092178  | CERAMIC CHIP, 25V B 0.1UF K      |
| CG114        | 24092178  | CERAMIC CHIP, 25V B 0.1UF K      |
| CG115        | 24092178  | CERAMIC CHIP, 25V B 0.1UF K      |
| CG116        | 24092178  | CERAMIC CHIP, 25V B 0.1UF K      |
| CG117        | 24619030  | CHIP CHEMICON, 6.3V 470M         |
| CG118        | 24105101  | CERAMIC CHIP, 50V CH 100PF J     |
| CG119        | 24619046  | ELECTROLYTIC, 16V 470UF          |
| CG120        | 24100104  | CERAMIC CHIP, 25V F 0.1UF Z      |
| CG121        | 24619046  | ELECTROLYTIC, 16V 470UF          |
| CG122        | 24100104  | CERAMIC CHIP, 25V F 0.1UF Z      |
| CG201        | 24669229  | ELECTROLYTIC, 50V 2.2UF M 3A     |
| CG202        | 24669229  | ELECTROLYTIC, 50V 2.2UF M 3A     |
| CG203        | 24669229  | ELECTROLYTIC, 50V 2.2UF M 3A     |
| CG204        | 24669229  | ELECTROLYTIC, 50V 2.2UF M 3A     |
| CG205        | 24669229  | ELECTROLYTIC, 50V 2.2UF M 3A     |
| CG206        | 24669229  | ELECTROLYTIC, 50V 2.2UF M 3A     |
| CG207        | 24669229  | ELECTROLYTIC, 50V 2.2UF M 3A     |
| CG208        | 24669229  | ELECTROLYTIC, 50V 2.2UF M 3A     |
| CG209        | 24761471  | ELECTROLYTIC CE04G, 6.3V 470UF M |
| CG211        | 24073038  | ELECTROLYTIC, 16V 100UF M 3A     |
| CG212        | 24232103  | CERAMIC DISC, 50V F 0.01UF Z     |
| CG214        | 24073038  | ELECTROLYTIC, 16V 100UF M 3A     |

| Location No. | Parts No. | Description                             |
|--------------|-----------|-----------------------------------------|
| CG215        | 24232103  | CERAMIC DISC, 50V F 0.01UF Z            |
| CI01         | 24109103  | CERAMIC CHIP, 50V B 0.01UF K            |
| CI02         | 24109103  | CERAMIC CHIP, 50V B 0.01UF K            |
| CI03         | 24109103  | CERAMIC CHIP, 50V B 0.01UF K            |
| CI04         | 24109103  | CERAMIC CHIP, 50V B 0.01UF K            |
| CI05         | 24109103  | CERAMIC CHIP, 50V B 0.01UF K            |
| CI07         | 24109103  | CERAMIC CHIP, 50V B 0.01UF K            |
| CI08         | 24797010  | ELECTROLYTIC, 50V 1UF M                 |
| CI09         | 24105470  | CERAMIC CHIP, 50V CH 47PF J             |
| CI10         | 24105180  | CERAMIC CHIP, 50V CH 18PF J             |
| CI11         | 24105270  | CERAMIC CHIP, 50V CH 27PF J             |
| CI12         | 24797478  | ELECTROLYTIC, 50V 0.47UF M              |
| CI13         | 24109102  | CERAMIC CHIP, 50V B 1000PF K            |
| CI14         | 24105470  | CERAMIC CHIP, 50V CH 47PF J             |
| CI15         | 24105390  | CERAMIC CHIP, 50V CH 39PF J             |
| CI16         | 24109103  | CERAMIC CHIP, 50V B 0.01UF K            |
| CI17         | 24092726  | CERAMIC CHIP CK733B 16V 2,200,000PFK    |
| CI18         | 24105181  | CERAMIC CHIP, 50V CH 180PF J            |
| CI21         | 24109103  | CERAMIC CHIP, 50V B 0.01UF K            |
| CI23         | 24109103  | CERAMIC CHIP, 50V B 0.01UF K            |
| CI25         | 24105240  | CERAMIC CHIP, 50V CH 24PF J             |
| CI51         | 24797220  | ELECTROLYTIC, 50V 22UF M                |
| CI52         | 24794101  | ELECTROLYTIC, 16V 100UF M               |
| CI53         | 24797339  | ELECTROLYTIC, 50V 3.3UF M               |
| CR41         | 24100104  | CERAMIC CHIP, 25V F 0.1UF Z             |
| CR42         | 24100104  | CERAMIC CHIP, 25V F 0.1UF Z             |
| CR43         | 24100104  | CERAMIC CHIP, 25V F 0.1UF Z             |
| CS01         | 24797229  | ELECTROLYTIC, 50V 2.2UF M               |
| CS02         | 24797229  | ELECTROLYTIC, 50V 2.2UF M               |
| CS03         | 24797229  | ELECTROLYTIC, 50V 2.2UF M               |
| CS04         | 24797229  | ELECTROLYTIC, 50V 2.2UF M               |
| CS05         | 24797229  | ELECTROLYTIC, 50V 2.2UF M               |
| CS06         | 24797229  | ELECTROLYTIC, 50V 2.2UF M               |
| CS07         | 24797229  | ELECTROLYTIC, 50V 2.2UF M               |
| CS08         | 24797229  | ELECTROLYTIC, 50V 2.2UF M               |
| CS09         | 24797229  | ELECTROLYTIC, 50V 2.2UF M               |
| CS10         | 24797229  | ELECTROLYTIC, 50V 2.2UF M               |
| CS11         | 24797229  | ELECTROLYTIC, 50V 2.2UF M               |
| CS12         | 24797229  | ELECTROLYTIC, 50V 2.2UF M               |
| CS13         | 24794100  | ELECTROLYTIC, 16V 10UF M                |
| CS14         | 24794100  | ELECTROLYTIC, 16V 10UF M                |
| CS15         | 24797229  | ELECTROLYTIC, 50V 2.2UF M               |
| CS16         | 24797229  | ELECTROLYTIC, 50V 2.2UF M               |
| CS19         | 24797479  | ELECTROLYTIC, 50V 4.7UF M               |
| CS20         | 24669478  | ELECTROLYTIC, 50V 0.47UF M 3A           |
| CS21         | 24797479  | ELECTROLYTIC, 50V 4.7UF M               |
| CS22         | 24797479  | ELECTROLYTIC, 50V 4.7UF M               |
| CS24         | 24797229  | ELECTROLYTIC, 50V 2.2UF M               |
| CS25         | 24794470  | ELECTROLYTIC, 16V 47UF M                |
| CS26         | 24085944  | ELECTROLYTIC, NONPOLAR, 50V 2.2UF M 11L |
| CS27         | 24085944  | ELECTROLYTIC, NONPOLAR, 50V 2.2UF M 11L |
| CS28         | 24085944  | ELECTROLYTIC, NONPOLAR, 50V 2.2UF M 11L |
| CS29         | 24085944  | ELECTROLYTIC, NONPOLAR, 50V 2.2UF M 11L |
| CS30         | 24797229  | ELECTROLYTIC, 50V 2.2UF M               |
| CS31         | 24797229  | ELECTROLYTIC, 50V 2.2UF M               |
| CS122        | 24797101  | ELECTROLYTIC, 50V 100UF M               |
| CS123        | 24797470  | ELECTROLYTIC, 50V 47UF M                |
| CV01         | 24092621  | CERAMIC CHIP, 10V B 1UF K               |
| CV02         | 24092621  | CERAMIC CHIP, 10V B 1UF K               |
| CV03         | 24092621  | CERAMIC CHIP, 10V B 1UF K               |
| CV04         | 24100104  | CERAMIC CHIP, 25V F 0.1UF Z             |

| Location No. | Parts No. | Description                    |
|--------------|-----------|--------------------------------|
| CV05         | 24092621  | CERAMIC CHIP, 10V B 1UF K      |
| CV06         | 24092621  | CERAMIC CHIP, 10V B 1UF K      |
| CV07         | 24100104  | CERAMIC CHIP, 25V F 0.1UF Z    |
| CV08         | 24794101  | ELECTROLYTIC, 16V 100UF M      |
| CV09         | 24092621  | CERAMIC CHIP, 10V B 1UF K      |
| CV10         | 24794100  | ELECTROLYTIC, 16V 10UF M       |
| CV11         | 24092621  | CERAMIC CHIP, 10V B 1UF K      |
| CV12         | 24100104  | CERAMIC CHIP, 25V F 0.1UF Z    |
| CV13         | 24100104  | CERAMIC CHIP, 25V F 0.1UF Z    |
| CV13         | 24794100  | ELECTROLYTIC, 16V 10UF M       |
| CV14         | 24092621  | CERAMIC CHIP, 10V B 1UF K      |
| CV14         | 24232103  | CERAMIC DISC, 50V F 0.01UF Z   |
| CV15         | 24100104  | CERAMIC CHIP, 25V F 0.1UF Z    |
| CV15         | 24232103  | CERAMIC DISC, 50V F 0.01UF Z   |
| CV23         | 24794101  | ELECTROLYTIC, 16V 100UF M      |
| CV24         | 24100104  | CERAMIC CHIP, 25V F 0.1UF Z    |
| CV37         | 24797339  | ELECTROLYTIC, 50V 3.3UF M      |
| CV38         | 24109102  | CERAMIC CHIP, 50V B 1000PF K   |
| CV39         | 24109102  | CERAMIC CHIP, 50V B 1000PF K   |
| CV40         | 24794101  | ELECTROLYTIC, 16V 100UF M      |
| CV42         | 24100104  | CERAMIC CHIP, 25V F 0.1UF Z    |
| CV45         | 24092621  | CERAMIC CHIP, 10V B 1UF K      |
| CV46         | 24092621  | CERAMIC CHIP, 10V B 1UF K      |
| CV47         | 24092621  | CERAMIC CHIP, 10V B 1UF K      |
| CV48         | 24109332  | CERAMIC CHIP, 50V B 3300PF K   |
| CV64         | 24794471  | ELECTROLYTIC, 16V 470UF M      |
| CV65         | 24794101  | ELECTROLYTIC, 16V 100UF M      |
| CV66         | 24100104  | CERAMIC CHIP, 25V F 0.1UF Z    |
| CV67         | 24794100  | ELECTROLYTIC, 16V 10UF M       |
| CV68         | 24100104  | CERAMIC CHIP, 25V F 0.1UF Z    |
| CV69         | 24794100  | ELECTROLYTIC, 16V 10UF M       |
| CV73         | 24100104  | CERAMIC CHIP, 25V F 0.1UF Z    |
| CV78         | 24100104  | CERAMIC CHIP, 25V F 0.1UF Z    |
| CV238        | 24109103  | CERAMIC CHIP, 50V B 0.01UF K   |
| CV244        | 24109103  | CERAMIC CHIP, 50V B 0.01UF K   |
| CV245        | 24092441  | CERAMIC CHIP, 16V F 1UF Z      |
| CV246        | 24092441  | CERAMIC CHIP, 16V F 1UF Z      |
| CV247        | 24092441  | CERAMIC CHIP, 16V F 1UF Z      |
| CV248        | 24109103  | CERAMIC CHIP, 50V B 0.01UF K   |
| CV249        | 24092441  | CERAMIC CHIP, 16V F 1UF Z      |
| CV250        | 24092441  | CERAMIC CHIP, 16V F 1UF Z      |
| CV251        | 24092441  | CERAMIC CHIP, 16V F 1UF Z      |
| CV252        | 24109103  | CERAMIC CHIP, 50V B 0.01UF K   |
| CV253        | 24092441  | CERAMIC CHIP, 16V F 1UF Z      |
| CV254        | 24092441  | CERAMIC CHIP, 16V F 1UF Z      |
| CV255        | 24092441  | CERAMIC CHIP, 16V F 1UF Z      |
| CV256        | 24109103  | CERAMIC CHIP, 50V B 0.01UF K   |
| CV257        | 24203100  | ELECTROLYTIC, 16V 10UF M 7L 3A |
| CV258        | 24666471  | ELECTROLYTIC, 16V 470UF M 3A   |
| CV259        | 24109103  | CERAMIC CHIP, 50V B 0.01UF K   |
| CV261        | 24109103  | CERAMIC CHIP, 50V B 0.01UF K   |
| CV263        | 24109103  | CERAMIC CHIP, 50V B 0.01UF K   |
| CY101        | 24092441  | CERAMIC CHIP, 16V F 1UF Z      |
| CY102        | 24794101  | ELECTROLYTIC, 16V 100UF M      |
| CY103        | 24100104  | CERAMIC CHIP, 25V F 0.1UF Z    |
| CY104        | 24109103  | CERAMIC CHIP, 50V B 0.01UF K   |
| CY105        | 24109103  | CERAMIC CHIP, 50V B 0.01UF K   |
| CY106        | 24109103  | CERAMIC CHIP, 50V B 0.01UF K   |
| CY107        | 24794100  | ELECTROLYTIC, 16V 10UF M       |
| CY108        | 24100104  | CERAMIC CHIP, 25V F 0.1UF Z    |
| CY109        | 24105101  | CERAMIC CHIP, 50V CH 100PF J   |
| CY111        | 24109103  | CERAMIC CHIP, 50V B 0.01UF K   |
| CY112        | 24105181  | CERAMIC CHIP, 50V CH 180PF J   |
| CY113        | 24109103  | CERAMIC CHIP, 50V B 0.01UF K   |
| CY114        | 24109103  | CERAMIC CHIP, 50V B 0.01UF K   |

| Location No.     | Parts No. | Description                        |
|------------------|-----------|------------------------------------|
| CY115            | 24105390  | CERAMIC CHIP, 50V CH 39PF J        |
| CY116            | 24105470  | CERAMIC CHIP, 50V CH 47PF J        |
| CY117            | 24105180  | CERAMIC CHIP, 50V CH 18PF J        |
| CY501            | 24109103  | CERAMIC CHIP, 50V B 0.01UF K       |
| CY502            | 24092730  | CERAMIC CHIP, 16V B 0.1UF K        |
| CY504            | 24109222  | CERAMIC CHIP, 50V B 2200PF K       |
| CY505            | 24105120  | CERAMIC CHIP, 50V CH 12PF J        |
| CY506            | 24109103  | CERAMIC CHIP, 50V B 0.01UF K       |
| CY508            | 24092730  | CERAMIC CHIP, 16V B 0.1UF K        |
| CY512            | 24092463  | CERAMIC CHIP, 16V B 0.22UF K       |
| CY513            | 24092730  | CERAMIC CHIP, 16V B 0.1UF K        |
| CY514            | 24092730  | CERAMIC CHIP, 16V B 0.1UF K        |
| CY515            | 24092730  | CERAMIC CHIP, 16V B 0.1UF K        |
| CY516            | 24109103  | CERAMIC CHIP, 50V B 0.01UF K       |
| CY517            | 24092731  | CERAMIC CHIP, 16V B 1UF K          |
| CY524            | 24092730  | CERAMIC CHIP, 16V B 0.1UF K        |
| CY525            | 24092730  | CERAMIC CHIP, 16V B 0.1UF K        |
| CY526            | 24092730  | CERAMIC CHIP, 16V B 0.1UF K        |
| CY538            | 24794101  | ELECTROLYTIC, 16V 100UF M          |
| CY539            | 24794102  | ELECTROLYTIC, 16V 1000UF M         |
| CY582            | 24105101  | CERAMIC CHIP, 50V CH 100PF J       |
| <b>RESISTORS</b> |           |                                    |
| R119             | 24011202  | CHIP, METAL FILM, 1/20W 2K OHM J   |
| R150             | 24011101  | CHIP, METAL FILM, 1/20W 100 OHM J  |
| R153             | 24011101  | CHIP, METAL FILM, 1/20W 100 OHM J  |
| R173             | 24011103  | CHIP, METAL FILM, 1/20W 10K OHM J  |
| R174             | 24011273  | CHIP, METAL FILM, 1/20W 27K OHM J  |
| R201             | 24011102  | CHIP, METAL FILM, 1/20W 1K OHM J   |
| R202             | 24872102  | CHIP, METAL FILM, 1/16W 1K OHM J   |
| R203             | 24872102  | CHIP, METAL FILM, 1/16W 1K OHM J   |
| R204             | 24011102  | CHIP, METAL FILM, 1/20W 1K OHM J   |
| R205             | 24011152  | CHIP, METAL FILM, 1/20W 1.5K OHM J |
| R207             | 24011102  | CHIP, METAL FILM, 1/20W 1K OHM J   |
| R208             | 24011332  | CHIP, METAL FILM, 1/20W 3.3K OHM J |
| R209             | 24011332  | CHIP, METAL FILM, 1/20W 3.3K OHM J |
| R210             | 24011101  | CHIP, METAL FILM, 1/20W 100 OHM J  |
| R210             | 24011102  | CHIP, METAL FILM, 1/20W 1K OHM J   |
| R211             | 24011101  | CHIP, METAL FILM, 1/20W 100 OHM J  |
| R211             | 24011102  | CHIP, METAL FILM, 1/20W 1K OHM J   |
| R212             | 24011101  | CHIP, METAL FILM, 1/20W 100 OHM J  |
| R212             | 24011222  | CHIP, METAL FILM, 1/20W 2.2K OHM J |
| R213             | 24011101  | CHIP, METAL FILM, 1/20W 100 OHM J  |
| R213             | 24011101  | CHIP, METAL FILM, 1/20W 100 OHM J  |
| R214             | 24011101  | CHIP, METAL FILM, 1/20W 100 OHM J  |
| R215             | 24011101  | CHIP, METAL FILM, 1/20W 100 OHM J  |
| R216             | 24011102  | CHIP, METAL FILM, 1/20W 1K OHM J   |
| R217             | 24011330  | CHIP, METAL FILM, 1/20W 33 OHM J   |
| R218             | 24011330  | CHIP, METAL FILM, 1/20W 33 OHM J   |
| R219             | 24011330  | CHIP, METAL FILM, 1/20W 33 OHM J   |
| R220             | 24011330  | CHIP, METAL FILM, 1/20W 33 OHM J   |
| R221             | 24011330  | CHIP, METAL FILM, 1/20W 33 OHM J   |
| R222             | 24011330  | CHIP, METAL FILM, 1/20W 33 OHM J   |
| R223             | 24011302  | CHIP, METAL FILM, 1/20W 3K OHM J   |
| R224             | 24872750  | CHIP, METAL FILM, 1/16W 75 OHM J   |
| R225             | 24872750  | CHIP, METAL FILM, 1/16W 75 OHM J   |
| R226             | 24872750  | CHIP, METAL FILM, 1/16W 75 OHM J   |
| R227             | 24872750  | CHIP, METAL FILM, 1/16W 15K OHM J  |
| R228             | 24872750  | CHIP, METAL FILM, 1/16W 75 OHM J   |
| R229             | 24872750  | CHIP, METAL FILM, 1/16W 75 OHM J   |
| R230             | 24011103  | CHIP, METAL FILM, 1/20W 10K OHM J  |
| R231             | 24011153  | CHIP, METAL FILM, 1/20W 15K OHM J  |
| R232             | 24011222  | CHIP, METAL FILM, 1/20W 2.2K OHM J |
| R233             | 24011472  | CHIP, METAL FILM, 1/20W 4.7K OHM J |
| R234             | 24019436  | CHIP BLOCK, 1/16W P-8 22 OHM J     |

| Location No. | Parts No. | Description                        |
|--------------|-----------|------------------------------------|
| R235         | 24019436  | CHIP BLOCK, 1/16W P-8 22 OHM J     |
| R236         | 24019436  | CHIP BLOCK, 1/16W P-8 22 OHM J     |
| R237         | 24019436  | CHIP BLOCK, 1/16W P-8 22 OHM J     |
| R238         | 24019436  | CHIP BLOCK, 1/16W P-8 22 OHM J     |
| R239         | 24019436  | CHIP BLOCK, 1/16W P-8 22 OHM J     |
| R240         | 24367153  | CARBON FILM, 1/6W 15K OHM G        |
| R240         | 24011101  | CHIP, METAL FILM, 1/20W 100 OHM J  |
| R241         | 24367223  | CARBON FILM, 1/6W 22K OHM G        |
| R241         | 24011102  | CHIP, METAL FILM, 1/20W 1K OHM J   |
| R242         | 24367223  | CARBON FILM, 1/6W 22K OHM G        |
| R242         | 24011101  | CHIP, METAL FILM, 1/20W 100 OHM J  |
| R243         | 24367333  | CARBON FILM, 1/6W 33K OHM G        |
| R243         | 24011102  | CHIP, METAL FILM, 1/20W 1K OHM J   |
| R244         | 24366124  | CARBON FILM, 1/6W 120K OHM J       |
| R244         | 24011101  | CHIP, METAL FILM, 1/20W 100 OHM J  |
| R245         | 24366472  | CARBON FILM, 1/6W 4.7K OHM J       |
| R245         | 24011102  | CHIP, METAL FILM, 1/20W 1K OHM J   |
| R245         | 24011102  | CHIP, METAL FILM, 1/20W 1K OHM J   |
| R246         | 24366472  | CARBON FILM, 1/6W 4.7K OHM J       |
| R246         | 24011101  | CHIP, METAL FILM, 1/20W 100 OHM J  |
| R247         | 24366102  | CARBON FILM, 1/6W 1K OHM J         |
| R247         | 24011101  | CHIP, METAL FILM, 1/20W 100 OHM J  |
| R248         | 24011101  | CHIP, METAL FILM, 1/20W 100 OHM J  |
| R249         | 24366474  | CARBON FILM, 1/6W 470K OHM J       |
| R249         | 24011101  | CHIP, METAL FILM, 1/20W 100 OHM J  |
| R250         | 24011101  | CHIP, METAL FILM, 1/20W 100 OHM J  |
| R251         | 24011101  | CHIP, METAL FILM, 1/20W 100 OHM J  |
| R252         | 24011101  | CHIP, METAL FILM, 1/20W 100 OHM J  |
| R253         | 24011473  | CHIP, METAL FILM, 1/20W 47K OHM J  |
| R254         | 24011472  | CHIP, METAL FILM, 1/20W 4.7K OHM J |
| R255         | 24011101  | CHIP, METAL FILM, 1/20W 100 OHM J  |
| R256         | 24011103  | CHIP, METAL FILM, 1/20W 10K OHM J  |
| R257         | 24011103  | CHIP, METAL FILM, 1/20W 10K OHM J  |
| R258         | 24011101  | CHIP, METAL FILM, 1/20W 100 OHM J  |
| R259         | 24011101  | CHIP, METAL FILM, 1/20W 100 OHM J  |
| R264         | 24011750  | CHIP, METAL FILM, 1/20W 75 OHM J   |
| R265         | 24011750  | CHIP, METAL FILM, 1/20W 75 OHM J   |
| R266         | 24011750  | CHIP, METAL FILM, 1/20W 75 OHM J   |
| R286         | 24011750  | CHIP, METAL FILM, 1/20W 75 OHM J   |
| R287         | 24011750  | CHIP, METAL FILM, 1/20W 75 OHM J   |
| R288         | 24011750  | CHIP, METAL FILM, 1/20W 75 OHM J   |
| R302         | 24011101  | CHIP, METAL FILM, 1/20W 100 OHM J  |
| R305         | 24322109  | OXIDE METAL FILM, 1W 1 OHM J       |
| R306         | 24011822  | CHIP, METAL FILM, 1/20W 8.2K OHM J |
| R307         | 24011101  | CHIP, METAL FILM, 1/20W 100 OHM J  |
| R308         | 24011101  | CHIP, METAL FILM, 1/20W 100 OHM J  |
| R311         | 24011563  | CHIP, METAL FILM, 1/20W 56K OHM J  |
| R312         | 24011103  | CHIP, METAL FILM, 1/20W 10K OHM J  |
| R314         | 24011473  | CHIP, METAL FILM, 1/20W 47K OHM J  |
| R315         | 24011681  | CHIP, METAL FILM, 1/20W 680 OHM J  |
| R321         | 24011562  | CHIP, METAL FILM, 1/20W 5.6K OHM J |
| R322         | 24011101  | CHIP, METAL FILM, 1/20W 100 OHM J  |
| R325         | 24011472  | CHIP, METAL FILM, 1/20W 4.7K OHM J |
| R330         | 24000633  | METAL FILM, 1/4W 10K OHM F         |
| R331         | 24000633  | METAL FILM, 1/4W 10K OHM F         |
| R334         | 24011102  | CHIP, METAL FILM, 1/20W 1K OHM J   |
| R335         | 24011102  | CHIP, METAL FILM, 1/20W 1K OHM J   |
| R336         | 24011102  | CHIP, METAL FILM, 1/20W 1K OHM J   |
| R337         | 24321129  | OXIDE METAL FILM, 1/2W 1.2 OHM J   |
| R338         | 24011153  | CHIP, METAL FILM, 1/20W 15K OHM J  |
| R340         | 24011103  | CHIP, METAL FILM, 1/20W 10K OHM J  |
| R341         | 24011183  | CHIP, METAL FILM, 1/20W 18K OHM J  |
| R343         | 24011102  | CHIP, METAL FILM, 1/20W 1K OHM J   |
| R344         | 24382151  | OXIDE METAL FILM, 1W 150 OHM J     |
| R345         | 24000445  | CHIP JUMPER, 1608TYPE              |

| Location No. | Parts No. | Description                        |
|--------------|-----------|------------------------------------|
| R346         | 24382391  | OXIDE METAL FILM, 1W 390 OHM J     |
| R348         | 24011473  | CHIP, METAL FILM, 1/20W 47K OHM J  |
| R349         | 24011392  | CHIP, METAL FILM, 1/20W 3.9K OHM J |
| R350         | 24011123  | CHIP, METAL FILM, 1/20W 12K OHM J  |
| R355         | 24011103  | CHIP, METAL FILM, 1/20W 10K OHM J  |
| R357         | 24872101  | CHIP, METAL FILM, 1/16W 100 OHM J  |
| R360         | 24011472  | CHIP, METAL FILM, 1/20W 4.7K OHM J |
| R361         | 24011104  | CHIP, METAL FILM, 1/20W 100K OHM J |
| R362         | 24011473  | CHIP, METAL FILM, 1/20W 47K OHM J  |
| R363         | 24011103  | CHIP, METAL FILM, 1/20W 10K OHM J  |
| R364         | 24011331  | CHIP, METAL FILM, 1/20W 330 OHM J  |
| R365         | 24011682  | CHIP, METAL FILM, 1/20W 6.8K OHM J |
| R366         | 24011222  | CHIP, METAL FILM, 1/20W 2.2K OHM J |
| R367         | 24011392  | CHIP, METAL FILM, 1/20W 3.9K OHM J |
| R368         | 24011101  | CHIP, METAL FILM, 1/20W 100 OHM J  |
| R369         | 24011103  | CHIP, METAL FILM, 1/20W 10K OHM J  |
| R370         | 24011102  | CHIP, METAL FILM, 1/20W 1K OHM J   |
| R371         | 24011823  | CHIP, METAL FILM, 1/20W 82K OHM J  |
| R372         | 24011332  | CHIP, METAL FILM, 1/20W 3.3K OHM J |
| R373         | 24011823  | CHIP, METAL FILM, 1/20W 82K OHM J  |
| R374         | 24011104  | CHIP, METAL FILM, 1/20W 100K OHM J |
| R375         | 24011153  | CHIP, METAL FILM, 1/20W 15K OHM J  |
| R376         | 24011333  | CHIP, METAL FILM, 1/20W 33K OHM J  |
| R378         | 24011103  | CHIP, METAL FILM, 1/20W 10K OHM J  |
| R390         | 24382561  | OXIDE METAL FILM, 1W 560 OHM J     |
| R391         | 24382561  | OXIDE METAL FILM, 1W 560 OHM J     |
| R392         | 24382561  | OXIDE METAL FILM, 1W 560 OHM J     |
| R403         | 24553101  | OXIDE METAL FILM, 1W 100 OHM J     |
| R404         | 24366272  | CARBON FILM, 1/6W 2.7K OHM J       |
| R405         | 24366101  | CARBON FILM, 1/6W 100 OHM J        |
| R406         | 24382682  | OXIDE METAL FILM, 1W 6.8K OHM J    |
| R407         | 24381100  | OXIDE METAL FILM, 1/2W 10 OHM J    |
| R409         | 24555220  | OXIDE METAL FILM, 3W 22 OHM J      |
| R410         | 24555220  | OXIDE METAL FILM, 3W 22 OHM J      |
| R411         | 24323479  | METAL FILM, 2W 4.7 OHM J           |
| R412         | 24383153  | OXIDE METAL FILM, 2W 15K OHM J     |
| R413         | 24366101  | CARBON FILM, 1/6W 100 OHM J        |
| R414         | 24019259  | FUSIBLE, 1/4W 27 OHM G             |
| R415         | 24366102  | CARBON FILM, 1/6W 1K OHM J         |
| R416         | 24383101  | OXIDE METAL FILM, 2W 100 OHM J     |
| R417         | 24011222  | CHIP, METAL FILM, 1/20W 2.2K OHM J |
| R418         | 24011103  | CHIP, METAL FILM, 1/20W 10K OHM J  |
| R419         | 24011103  | CHIP, METAL FILM, 1/20W 10K OHM J  |
| R420         | 24366103  | CARBON FILM, 1/6W 10K OHM J        |
| R421         | 24366223  | CARBON FILM, 1/6W 22K OHM J        |
| R422         | 24366223  | CARBON FILM, 1/6W 22K OHM J        |
| R423         | 24942102  | CARBON COMPOSITION, 1/2W 1K OHM J  |
| R424         | 24376104  | CARBON FILM, 1/2W 100K OHM J       |
| R425         | 24376104  | CARBON FILM, 1/2W 100K OHM J       |
| R426         | 24366101  | CARBON FILM, 1/6W 100 OHM J        |
| R427         | 24366101  | CARBON FILM, 1/6W 100 OHM J        |
| R428         | 24377224  | CARBON FILM, 1W 220K OHM J         |
| R429         | 24942102  | CARBON COMPOSITION, 1/2W 1K OHM J  |
| R431         | 24383102  | OXIDE METAL FILM, 3W 1K OHM J      |
| R432         | 24376274  | CARBON FILM, 1/2W 270K OHM J       |
| R433         | 24376274  | CARBON FILM, 1/2W 270K OHM J       |
| R433         | 24366681  | CARBON FILM, 1/6W 680 OHM J        |
| R434         | 24376274  | CARBON FILM, 1/2W 270K OHM J       |
| R434         | 24366472  | CARBON FILM, 1/6W 4.7K OHM J       |
| R435         | 24366332  | CARBON FILM, 1/6W 3.3K OHM J       |
| R436         | 24366473  | CARBON FILM, 1/6W 47K OHM J        |
| R437         | 24011223  | CHIP, METAL FILM, 1/20W 22K OHM J  |
| R438         | 24011102  | CHIP, METAL FILM, 1/20W 1K OHM J   |
| R439         | 24011103  | CHIP, METAL FILM, 1/20W 10K OHM J  |
| R440         | 24011103  | CHIP, METAL FILM, 1/20W 10K OHM J  |

| Location No. | Parts No. | Description                        |
|--------------|-----------|------------------------------------|
| R441         | 24533331  | FUSIBLE, 2W 330 OHM J              |
| R443         | 24310109  | OXIDE METAL FILM, 1/2W 1 OHM J     |
| R444         | 24322398  | OXIDE METAL FILM, 1W 0.39 OHM J    |
| R446         | 24366103  | CARBON FILM, 1/6W 10K OHM J        |
| R447         | 24382473  | OXIDE METAL FILM, 1W 47K OHM J     |
| R448         | 24366562  | CARBON FILM, 1/6W 5.6K OHM J       |
| R449         | 24366152  | CARBON FILM, 1/6W 1.5K OHM J       |
| R466         | 24011273  | CHIP, METAL FILM, 1/20W 27K OHM J  |
| R467         | 24011223  | CHIP, METAL FILM, 1/20W 22K OHM J  |
| R469         | 24366101  | CARBON FILM, 1/6W 100 OHM J        |
| R470         | 24366224  | CARBON FILM, 1/6W 220K OHM J       |
| R472         | 24366101  | CARBON FILM, 1/6W 100 OHM J        |
| R473         | 24366223  | CARBON FILM, 1/6W 22K OHM J        |
| R474         | 24376393  | CARBON FILM, 1/2W 39K OHM J        |
| R475         | 24011101  | CHIP, METAL FILM, 1/20W 100 OHM J  |
| R476         | 24366471  | CARBON FILM, 1/6W 470 OHM J        |
| R477         | 24366102  | CARBON FILM, 1/6W 1K OHM J         |
| R477         | 24000141  | METAL FILM, 1/4W 220 OHM F         |
| R480         | 24011473  | CHIP, METAL FILM, 1/20W 47K OHM J  |
| R481         | 24011103  | CHIP, METAL FILM, 1/20W 10K OHM J  |
| R481         | 24322478  | OXIDE METAL FILM, 1W 0.47 OHM J    |
| R482         | 24011103  | CHIP, METAL FILM, 1/20W 10K OHM J  |
| R482         | 24552271  | OXIDE METAL FILM, 1/2W 270 OHM J   |
| R483         | 24552151  | OXIDE METAL FILM, 1/2W 150 OHM J   |
| R484         | 24366102  | CARBON FILM, 1/6W 1K OHM J         |
| R490         | 24552331  | OXIDE METAL FILM, 1/2W 330 OHM J   |
| R491         | 24011222  | CHIP, METAL FILM, 1/20W 2.2K OHM J |
| R492         | 24000360  | METAL FILM, 1/4W 1.2K OHM F        |
| R493         | 24000141  | METAL FILM, 1/4W 220 OHM F         |
| R494         | 24000147  | METAL FILM, 1/4W 470 OHM F         |
| R495         | 24366333  | CARBON FILM, 1/6W 33K OHM J        |
| R496         | 24366103  | CARBON FILM, 1/6W 10K OHM J        |
| R497         | 24366100  | CARBON FILM, 1/6W 10 OHM J         |
| R498         | 24366103  | CARBON FILM, 1/6W 10K OHM J        |
| R499         | 24366102  | CARBON FILM, 1/6W 1K OHM J         |
| R513         | 24366101  | CARBON FILM, 1/6W 100 OHM J        |
| R513         | 24000445  | CHIP JUMPER, 1608TYPE              |
| R515         | 24366103  | CARBON FILM, 1/6W 10K OHM J        |
| R520         | 24011100  | CHIP, METAL FILM, 1/20W 10 OHM J   |
| R521         | 24011222  | CHIP, METAL FILM, 1/20W 2.2K OHM J |
| R523         | 24011102  | CHIP, METAL FILM, 1/20W 1K OHM J   |
| R524         | 24011101  | CHIP, METAL FILM, 1/20W 100 OHM J  |
| R525         | 24011101  | CHIP, METAL FILM, 1/20W 100 OHM J  |
| R526         | 24011102  | CHIP, METAL FILM, 1/20W 1K OHM J   |
| R527         | 24011101  | CHIP, METAL FILM, 1/20W 100 OHM J  |
| R528         | 24011101  | CHIP, METAL FILM, 1/20W 100 OHM J  |
| R530         | 24000445  | CHIP JUMPER, 1608TYPE              |
| R531         | 24011103  | CHIP, METAL FILM, 1/20W 10K OHM J  |
| R537         | 24011472  | CHIP, METAL FILM, 1/20W 4.7K OHM J |
| R538         | 24011103  | CHIP, METAL FILM, 1/20W 10K OHM J  |
| R539         | 24011330  | CHIP, METAL FILM, 1/20W 33 OHM J   |
| R541         | 24011182  | CHIP, METAL FILM, 1/20W 1.8K OHM J |
| R542         | 24011182  | CHIP, METAL FILM, 1/20W 1.8K OHM J |
| R543         | 24011182  | CHIP, METAL FILM, 1/20W 1.8K OHM J |
| R544         | 24011182  | CHIP, METAL FILM, 1/20W 1.8K OHM J |
| R545         | 24011182  | CHIP, METAL FILM, 1/20W 1.8K OHM J |
| R546         | 24011182  | CHIP, METAL FILM, 1/20W 1.8K OHM J |
| R547         | 24011680  | CHIP, METAL FILM, 1/20W 68 OHM J   |
| R548         | 24011680  | CHIP, METAL FILM, 1/20W 68 OHM J   |
| R549         | 24011102  | CHIP, METAL FILM, 1/20W 1K OHM J   |
| R553         | 24011680  | CHIP, METAL FILM, 1/20W 68 OHM J   |
| R561         | 24552181  | OXIDE METAL FILM, 1/2W 180 OHM J   |
| R562         | 24011103  | CHIP, METAL FILM, 1/20W 10K OHM J  |
| R563         | 24011472  | CHIP, METAL FILM, 1/20W 4.7K OHM J |
| R569         | 24011224  | CHIP, METAL FILM, 1/20W 220K OHM J |

| Location No. | Parts No. | Description                        |
|--------------|-----------|------------------------------------|
| R570         | 24011101  | CHIP, METAL FILM, 1/20W 100 OHM J  |
| R571         | 24011101  | CHIP, METAL FILM, 1/20W 100 OHM J  |
| R575         | 24011102  | CHIP, METAL FILM, 1/20W 1K OHM J   |
| R576         | 24011222  | CHIP, METAL FILM, 1/20W 2.2K OHM J |
| R577         | 24011102  | CHIP, METAL FILM, 1/20W 1K OHM J   |
| R586         | 24011222  | CHIP, METAL FILM, 1/20W 2.2K OHM J |
| R587         | 24011102  | CHIP, METAL FILM, 1/20W 1K OHM J   |
| R588         | 24011222  | CHIP, METAL FILM, 1/20W 2.2K OHM J |
| R589         | 24011682  | CHIP, METAL FILM, 1/20W 6.8K OHM J |
| R590         | 24011222  | CHIP, METAL FILM, 1/20W 2.2K OHM J |
| R591         | 24011682  | CHIP, METAL FILM, 1/20W 6.8K OHM J |
| R601         | 24011332  | CHIP, METAL FILM, 1/20W 3.3K OHM J |
| R602         | 24011332  | CHIP, METAL FILM, 1/20W 3.3K OHM J |
| R603         | 24011122  | CHIP, METAL FILM, 1/20W 1.2K OHM J |
| R604         | 24011122  | CHIP, METAL FILM, 1/20W 1.2K OHM J |
| R609         | 24366339  | CARBON FILM, 1/6W 3.3 OHM J        |
| R610         | 24366339  | CARBON FILM, 1/6W 3.3 OHM J        |
| R613         | 24011222  | CHIP, METAL FILM, 1/20W 2.2K OHM J |
| R661         | 24011102  | CHIP, METAL FILM, 1/20W 1K OHM J   |
| R662         | 24011333  | CHIP, METAL FILM, 1/20W 33K OHM J  |
| R663         | 24011103  | CHIP, METAL FILM, 1/20W 10K OHM J  |
| R665         | 24011223  | CHIP, METAL FILM, 1/20W 22K OHM J  |
| R666         | 24011473  | CHIP, METAL FILM, 1/20W 47K OHM J  |
| R667         | 24011223  | CHIP, METAL FILM, 1/20W 22K OHM J  |
| R668         | 24011473  | CHIP, METAL FILM, 1/20W 47K OHM J  |
| R671         | 24011102  | CHIP, METAL FILM, 1/20W 1K OHM J   |
| R672         | 24011333  | CHIP, METAL FILM, 1/20W 33K OHM J  |
| R673         | 24011103  | CHIP, METAL FILM, 1/20W 10K OHM J  |
| R674         | 24011472  | CHIP, METAL FILM, 1/20W 4.7K OHM J |
| R682         | 24011473  | CHIP, METAL FILM, 1/20W 47K OHM J  |
| R683         | 24011223  | CHIP, METAL FILM, 1/20W 22K OHM J  |
| R684         | 24011223  | CHIP, METAL FILM, 1/20W 22K OHM J  |
| R687         | 24011103  | CHIP, METAL FILM, 1/20W 10K OHM J  |
| R688         | 24011224  | CHIP, METAL FILM, 1/20W 220K OHM J |
| R689         | 24011222  | CHIP, METAL FILM, 1/20W 2.2K OHM J |
| R690         | 24011472  | CHIP, METAL FILM, 1/20W 4.7K OHM J |
| R691         | 24011103  | CHIP, METAL FILM, 1/20W 10K OHM J  |
| R692         | 24011103  | CHIP, METAL FILM, 1/20W 10K OHM J  |
| R693         | 24000445  | CHIP JUMPER, 1608TYPE              |
| R702         | 24552221  | OXIDE METAL FILM, 1/2W 220 OHM J   |
| R709         | 24366563  | CARBON FILM, 1/6W 56K OHM J        |
| R713         | 24366273  | CARBON FILM, 1/6W 27K OHM J        |
| R715         | 24366333  | CARBON FILM, 1/6W 33K OHM J        |
| R716         | 24366273  | CARBON FILM, 1/6W 27K OHM J        |
| R717         | 24366333  | CARBON FILM, 1/6W 33K OHM J        |
| R718         | 24366101  | CARBON FILM, 1/6W 100 OHM J        |
| R719         | 24366100  | CARBON FILM, 1/6W 10 OHM J         |
| R720         | 24552331  | OXIDE METAL FILM, 1/2W 330 OHM J   |
| R721         | 24546919  | FUSIBLE, 1/2W 9.1 OHM J            |
| R722         | 24546919  | FUSIBLE, 1/2W 9.1 OHM J            |
| R722         | 24552471  | OXIDE METAL FILM, 1/2W 470 OHM J   |
| R723         | 24366101  | CARBON FILM, 1/6W 100 OHM J        |
| R723         | 24011102  | CHIP, METAL FILM, 1/20W 1K OHM J   |
| R724         | 24366151  | CARBON FILM, 1/6W 150 OHM J        |
| R724         | 24011102  | CHIP, METAL FILM, 1/20W 1K OHM J   |
| R725         | 24366332  | CARBON FILM, 1/6W 3.3K OHM J       |
| R730         | 24552100  | OXIDE METAL FILM, 1/2W 10 OHM J    |
| R731         | 24552331  | OXIDE METAL FILM, 1/2W 330 OHM J   |
| R732         | 24366470  | CARBON FILM, 1/6W 47 OHM J         |
| R733         | 24366683  | CARBON FILM, 1/6W 68K OHM J        |
| R734         | 24366470  | CARBON FILM, 1/6W 47 OHM J         |
| R735         | 24366683  | CARBON FILM, 1/6W 68K OHM J        |
| R736         | 24553330  | OXIDE METAL FILM, 1W 33 OHM J      |
| R737         | 24366751  | CARBON FILM, 1/6W 750 OHM J        |
| R738         | 24366102  | CARBON FILM, 1/6W 1K OHM J         |

| Location No. | Parts No. | Description                      |
|--------------|-----------|----------------------------------|
| R739         | 24366751  | CARBON FILM, 1/6W 750 OHM J      |
| R740         | 24553330  | OXIDE METAL FILM, 1W 33 OHM J    |
| R741         | 24322229  | OXIDE METAL FILM, 1W 2.2 OHM J   |
| R742         | 24321229  | OXIDE METAL FILM, 1/2W 2.2 OHM J |
| R743         | 24554221  | OXIDE METAL FILM, 2W 220 OHM J   |
| R744         | 24366122  | CARBON FILM, 1/6W 1.2K OHM J     |
| R745         | 24366122  | CARBON FILM, 1/6W 1.2K OHM J     |
| R761         | 24366273  | CARBON FILM, 1/6W 27K OHM J      |
| R762         | 24366563  | CARBON FILM, 1/6W 56K OHM J      |
| R763         | 24552331  | OXIDE METAL FILM, 1/2W 330 OHM J |
| R764         | 24366470  | CARBON FILM, 1/6W 47 OHM J       |
| R765         | 24552100  | OXIDE METAL FILM, 1/2W 10 OHM J  |
| R766         | 24366470  | CARBON FILM, 1/6W 47 OHM J       |
| R767         | 24552221  | OXIDE METAL FILM, 1/2W 220 OHM J |
| R768         | 24366751  | CARBON FILM, 1/6W 750 OHM J      |
| R769         | 24366122  | CARBON FILM, 1/6W 1.2K OHM J     |
| R770         | 24553330  | OXIDE METAL FILM, 1W 33 OHM J    |
| R771         | 24322229  | OXIDE METAL FILM, 1W 2.2 OHM J   |
| R772         | 24366683  | CARBON FILM, 1/6W 68K OHM J      |
| R773         | 24366683  | CARBON FILM, 1/6W 68K OHM J      |
| R774         | 24366751  | CARBON FILM, 1/6W 750 OHM J      |
| R775         | 24366122  | CARBON FILM, 1/6W 1.2K OHM J     |
| R776         | 24553330  | OXIDE METAL FILM, 1W 33 OHM J    |
| R777         | 24321229  | OXIDE METAL FILM, 1/2W 2.2 OHM J |
| R778         | 24366102  | CARBON FILM, 1/6W 1K OHM J       |
| R779         | 24554221  | OXIDE METAL FILM, 2W 220 OHM J   |
| R781         | 24366273  | CARBON FILM, 1/6W 27K OHM J      |
| R782         | 24366563  | CARBON FILM, 1/6W 56K OHM J      |
| R783         | 24552221  | OXIDE METAL FILM, 1/2W 220 OHM J |
| R784         | 24552100  | OXIDE METAL FILM, 1/2W 10 OHM J  |
| R785         | 24366470  | CARBON FILM, 1/6W 47 OHM J       |
| R786         | 24366751  | CARBON FILM, 1/6W 750 OHM J      |
| R787         | 24366122  | CARBON FILM, 1/6W 1.2K OHM J     |
| R788         | 24366683  | CARBON FILM, 1/6W 68K OHM J      |
| R789         | 24366683  | CARBON FILM, 1/6W 68K OHM J      |
| R790         | 24366751  | CARBON FILM, 1/6W 750 OHM J      |
| R791         | 24366122  | CARBON FILM, 1/6W 1.2K OHM J     |
| R792         | 24366102  | CARBON FILM, 1/6W 1K OHM J       |
| R793         | 24321229  | OXIDE METAL FILM, 1/2W 2.2 OHM J |
| R794         | 24553330  | OXIDE METAL FILM, 1W 33 OHM J    |
| R795         | 24322229  | OXIDE METAL FILM, 1W 2.2 OHM J   |
| R796         | 24554221  | OXIDE METAL FILM, 2W 220 OHM J   |
| R797         | 24366470  | CARBON FILM, 1/6W 47 OHM J       |
| R798         | 24552331  | OXIDE METAL FILM, 1/2W 330 OHM J |
| R799         | 24553330  | OXIDE METAL FILM, 1W 33 OHM J    |
| R810         | 24007061  | CERAMIC COVERED, 2W 1.8 OHM K    |
| R818         | 24366102  | CARBON FILM, 1/6W 1K OHM J       |
| R819         | 24366103  | CARBON FILM, 1/6W 10K OHM J      |
| R834         | 24000147  | METAL FILM, 1/4W 470 OHM F       |
| R835         | 24000167  | METAL FILM, 1/4W 56 OHM F 50P    |
| R836         | 24366102  | CARBON FILM, 1/6W 1K OHM J       |
| R842         | 24376563  | CARBON FILM, 1/2W 56K OHM J      |
| R843         | 24376563  | CARBON FILM, 1/2W 56K OHM J      |
| R844         | 24366103  | CARBON FILM, 1/6W 10K OHM J      |
| R849         | 24366101  | CARBON FILM, 1/6W 100 OHM J      |
| R860         | 24383153  | OXIDE METAL FILM, 2W 15K OHM J   |
| R861         | 24383153  | OXIDE METAL FILM, 2W 15K OHM J   |
| R862         | 24321689  | OXIDE METAL FILM, 1/2W 6.8 OHM J |
| R864         | 24552102  | OXIDE METAL FILM, 1/2W 1K OHM J  |
| R865         | 24552390  | OXIDE METAL FILM, 1/2W 39 OHM J  |
| R866         | 24366472  | CARBON FILM, 1/6W 4.7K OHM J     |
| R867         | 24366223  | CARBON FILM, 1/6W 22K OHM J      |
| R868         | 24552470  | OXIDE METAL FILM, 1/2W 47 OHM J  |
| R870         | 24381151  | OXIDE METAL FILM, 1/2W 150 OHM J |
| R871         | 24382680  | OXIDE METAL FILM, 1W 68 OHM J    |

| Location No. | Parts No. | Description                       |
|--------------|-----------|-----------------------------------|
| R873         | 24552100  | OXIDE METAL FILM, 1/2W 10 OHM J   |
| R874         | 24366150  | CARBON FILM, 1/6W 15 OHM J        |
| R881         | 24366152  | CARBON FILM, 1/6W 1.5K OHM J      |
| R882         | 24366101  | CARBON FILM, 1/6W 100 OHM J       |
| R883         | 24381682  | OXIDE METAL FILM, 1/2W 6.8K OHM J |
| R885         | 24366102  | CARBON FILM, 1/6W 1K OHM J        |
| R886         | 24366332  | CARBON FILM, 1/6W 3.3K OHM J      |
| R893         | 24366472  | CARBON FILM, 1/6W 4.7K OHM J      |
| R894         | 24366103  | CARBON FILM, 1/6W 10K OHM J       |
| R899         | 24010001  | CARBON FILM, 1/2W 3.9M OHM J      |
| R900         | 24000907  | FUSIBLE, 1W 3.9 OHM J             |
| R901         | 24366331  | CARBON FILM, 1/6W 330 OHM J       |
| R903         | 24552101  | OXIDE METAL FILM, 1/2W 100 OHM J  |
| R905         | 24366270  | CARBON FILM, 1/6W 27 OHM J        |
| R906         | 24366271  | CARBON FILM, 1/6W 270 OHM J       |
| R908         | 24366680  | CARBON FILM, 1/6W 68 OHM J        |
| R909         | 24366180  | CARBON FILM, 1/6W 18 OHM J        |
| R911         | 24366331  | CARBON FILM, 1/6W 330 OHM J       |
| R913         | 24552101  | OXIDE METAL FILM, 1/2W 100 OHM J  |
| R915         | 24366270  | CARBON FILM, 1/6W 27 OHM J        |
| R916         | 24366271  | CARBON FILM, 1/6W 270 OHM J       |
| R918         | 24366680  | CARBON FILM, 1/6W 68 OHM J        |
| R919         | 24366180  | CARBON FILM, 1/6W 18 OHM J        |
| R920         | 24366222  | CARBON FILM, 1/6W 2.2K OHM J      |
| R921         | 24366331  | CARBON FILM, 1/6W 330 OHM J       |
| R923         | 24552101  | OXIDE METAL FILM, 1/2W 100 OHM J  |
| R925         | 24366180  | CARBON FILM, 1/6W 18 OHM J        |
| R926         | 24366271  | CARBON FILM, 1/6W 270 OHM J       |
| R927         | 24366100  | CARBON FILM, 1/6W 10 OHM J        |
| R928         | 24366680  | CARBON FILM, 1/6W 68 OHM J        |
| R929         | 24366270  | CARBON FILM, 1/6W 27 OHM J        |
| R930         | 24366222  | CARBON FILM, 1/6W 2.2K OHM J      |
| R931         | 24383153  | OXIDE METAL FILM, 2W 15K OHM J    |
| R932         | 24383153  | OXIDE METAL FILM, 2W 15K OHM J    |
| R933         | 24366560  | CARBON FILM, 1/6W 56 OHM J        |
| R934         | 24383153  | OXIDE METAL FILM, 2W 15K OHM J    |
| R935         | 24383153  | OXIDE METAL FILM, 2W 15K OHM J    |
| R936         | 24383153  | OXIDE METAL FILM, 2W 15K OHM J    |
| R937         | 24383153  | OXIDE METAL FILM, 2W 15K OHM J    |
| R938         | 24366150  | CARBON FILM, 1/6W 15 OHM J        |
| R941         | 24383153  | OXIDE METAL FILM, 2W 15K OHM J    |
| R942         | 24383153  | OXIDE METAL FILM, 2W 15K OHM J    |
| R943         | 24366560  | CARBON FILM, 1/6W 56 OHM J        |
| R944         | 24383153  | OXIDE METAL FILM, 2W 15K OHM J    |
| R945         | 24366150  | CARBON FILM, 1/6W 15 OHM J        |
| R946         | 24383153  | OXIDE METAL FILM, 2W 15K OHM J    |
| R947         | 24383153  | OXIDE METAL FILM, 2W 15K OHM J    |
| R948         | 24366222  | CARBON FILM, 1/6W 2.2K OHM J      |
| R949         | 24383153  | OXIDE METAL FILM, 2W 15K OHM J    |
| R950         | 24366222  | CARBON FILM, 1/6W 2.2K OHM J      |
| R951         | 24383153  | OXIDE METAL FILM, 2W 15K OHM J    |
| R952         | 24383153  | OXIDE METAL FILM, 2W 15K OHM J    |
| R953         | 24366560  | CARBON FILM, 1/6W 56 OHM J        |
| R954         | 24383153  | OXIDE METAL FILM, 2W 15K OHM J    |
| R955         | 24383153  | OXIDE METAL FILM, 2W 15K OHM J    |
| R956         | 24383153  | OXIDE METAL FILM, 2W 15K OHM J    |
| R957         | 24383153  | OXIDE METAL FILM, 2W 15K OHM J    |
| R958         | 24366150  | CARBON FILM, 1/6W 15 OHM J        |
| R961         | 24366122  | CARBON FILM, 1/6W 1.2K OHM J      |
| R962         | 24366471  | CARBON FILM, 1/6W 470 OHM J       |
| R963         | 24366100  | CARBON FILM, 1/6W 10 OHM J        |
| R964         | 24366332  | CARBON FILM, 1/6W 3.3K OHM J      |
| R965         | 24366101  | CARBON FILM, 1/6W 100 OHM J       |
| R966         | 24366331  | CARBON FILM, 1/6W 330 OHM J       |
| R967         | 24366681  | CARBON FILM, 1/6W 680 OHM J       |

| Location No. | Parts No. | Description                        |
|--------------|-----------|------------------------------------|
| R968         | 24366222  | CARBON FILM, 1/6W 2.2K OHM J       |
| R978         | 24366222  | CARBON FILM, 1/6W 2.2K OHM J       |
| R987         | 24366101  | CARBON FILM, 1/6W 100 OHM J        |
| R988         | 24366222  | CARBON FILM, 1/6W 2.2K OHM J       |
| R991         | 24366222  | CARBON FILM, 1/6W 2.2K OHM J       |
| R992         | 24366222  | CARBON FILM, 1/6W 2.2K OHM J       |
| R995         | 24366330  | CARBON FILM, 1/6W 33 OHM J         |
| R2020        | 24011101  | CHIP, METAL FILM, 1/20W 100 OHM J  |
| R2030        | 24011105  | CHIP, METAL FILM, 1/20W 1M OHM J   |
| R2040        | 24011101  | CHIP, METAL FILM, 1/20W 100 OHM J  |
| R2060        | 24011102  | CHIP, METAL FILM, 1/20W 1K OHM J   |
| R2104        | 24011302  | CHIP, METAL FILM, 1/20W 3K OHM J   |
| R2105        | 24011101  | CHIP, METAL FILM, 1/20W 100 OHM J  |
| R2106        | 24011101  | CHIP, METAL FILM, 1/20W 100 OHM J  |
| R2107        | 24011101  | CHIP, METAL FILM, 1/20W 100 OHM J  |
| R2108        | 24011103  | CHIP, METAL FILM, 1/20W 10K OHM J  |
| R2109        | 24011103  | CHIP, METAL FILM, 1/20W 10K OHM J  |
| R2110        | 24011103  | CHIP, METAL FILM, 1/20W 10K OHM J  |
| R2111        | 24011560  | CHIP, METAL FILM, 1/20W 56 OHM J   |
| R2112        | 24011560  | CHIP, METAL FILM, 1/20W 56 OHM J   |
| R2113        | 24011560  | CHIP, METAL FILM, 1/20W 56 OHM J   |
| R2149        | 24871102  | CHIP, METAL FILM, 1/8W 1K OHM J    |
| R2150        | 24871102  | CHIP, METAL FILM, 1/8W 1K OHM J    |
| R2151        | 24871102  | CHIP, METAL FILM, 1/8W 1K OHM J    |
| R2152        | 24011101  | CHIP, METAL FILM, 1/20W 100 OHM J  |
| R2153        | 24011101  | CHIP, METAL FILM, 1/20W 100 OHM J  |
| R2154        | 24011101  | CHIP, METAL FILM, 1/20W 100 OHM J  |
| R2155        | 24871102  | CHIP, METAL FILM, 1/8W 1K OHM J    |
| R2156        | 24871102  | CHIP, METAL FILM, 1/8W 1K OHM J    |
| R2157        | 24871102  | CHIP, METAL FILM, 1/8W 1K OHM J    |
| R2158        | 24011103  | CHIP, METAL FILM, 1/20W 10K OHM J  |
| R2159        | 24011103  | CHIP, METAL FILM, 1/20W 10K OHM J  |
| R2160        | 24011103  | CHIP, METAL FILM, 1/20W 10K OHM J  |
| R2161        | 24871472  | CHIP, METAL FILM, 1/8W 4.7K OHM J  |
| R2162        | 24871562  | CHIP, METAL FILM, 1/8W 5.6K OHM J  |
| R2163        | 24011121  | CHIP, METAL FILM, 1/20W 120 OHM J  |
| R2164        | 24011100  | CHIP, METAL FILM, 1/20W 10 OHM J   |
| R2165        | 24011100  | CHIP, METAL FILM, 1/20W 10 OHM J   |
| R2166        | 24011100  | CHIP, METAL FILM, 1/20W 10 OHM J   |
| R2167        | 24011100  | CHIP, METAL FILM, 1/20W 10 OHM J   |
| R2168        | 24011100  | CHIP, METAL FILM, 1/20W 10 OHM J   |
| R4401        | 24011472  | CHIP, METAL FILM, 1/20W 4.7K OHM J |
| R4403        | 24011471  | CHIP, METAL FILM, 1/20W 470 OHM J  |
| R4405        | 24011102  | CHIP, METAL FILM, 1/20W 1K OHM J   |
| R4406        | 24011103  | CHIP, METAL FILM, 1/20W 10K OHM J  |
| R4407        | 24011221  | CHIP, METAL FILM, 1/20W 220 OHM J  |
| R4409        | 24871472  | CHIP, METAL FILM, 1/8W 4.7K OHM J  |
| R4411        | 24000445  | CHIP JUMPER, 1608TYPE              |
| R4412        | 24011101  | CHIP, METAL FILM, 1/20W 100 OHM J  |
| R4413        | 24011561  | CHIP, METAL FILM, 1/20W 560 OHM J  |
| R4430        | 24381150  | OXIDE METAL FILM, 1/2W 15 OHM J    |
| R4431        | 24366102  | CARBON FILM, 1/6W 1K OHM J         |
| R4605        | 24011331  | CHIP, METAL FILM, 1/20W 330 OHM J  |
| R4701        | 24011361  | CHIP, METAL FILM, 1/20W 360 OHM J  |
| R4702        | 24011272  | CHIP, METAL FILM, 1/20W 2.7K OHM J |
| R4704        | 24011103  | CHIP, METAL FILM, 1/20W 10K OHM J  |
| R4705        | 24011474  | CHIP, METAL FILM, 1/20W 470K OHM J |
| R4708        | 24011101  | CHIP, METAL FILM, 1/20W 100 OHM J  |
| R4709        | 24011332  | CHIP, METAL FILM, 1/20W 3.3K OHM J |
| R4710        | 24011102  | CHIP, METAL FILM, 1/20W 1K OHM J   |
| R4711        | 24011101  | CHIP, METAL FILM, 1/20W 100 OHM J  |
| R4712        | 24011101  | CHIP, METAL FILM, 1/20W 100 OHM J  |
| R4714        | 24011101  | CHIP, METAL FILM, 1/20W 100 OHM J  |
| R4715        | 24011222  | CHIP, METAL FILM, 1/20W 2.2K OHM J |
| R4716        | 24011222  | CHIP, METAL FILM, 1/20W 2.2K OHM J |

| Location No. | Parts No. | Description                        |
|--------------|-----------|------------------------------------|
| R4717        | 24011332  | CHIP, METAL FILM, 1/20W 3.3K OHM J |
| R5020        | 24011101  | CHIP, METAL FILM, 1/20W 100 OHM J  |
| R5030        | 24011101  | CHIP, METAL FILM, 1/20W 100 OHM J  |
| R7701        | 24011333  | CHIP, METAL FILM, 1/20W 33K OHM J  |
| R7707        | 24011472  | CHIP, METAL FILM, 1/20W 4.7K OHM J |
| R7708        | 24011472  | CHIP, METAL FILM, 1/20W 4.7K OHM J |
| R7710        | 24384221  | METAL OXIDE FILM, 3W 220 J         |
| R7711        | 24547189  | FUSIBLE, 1W 1.8 OHM J              |
| R7712        | 24011472  | CHIP, METAL FILM, 1/20W 4.7K OHM J |
| R7713        | 24011472  | CHIP, METAL FILM, 1/20W 4.7K OHM J |
| R7715        | 24384221  | METAL OXIDE FILM, 3W 220 J         |
| R7716        | 24547189  | FUSIBLE, 1W 1.8 OHM J              |
| R7717        | 24011472  | CHIP, METAL FILM, 1/20W 4.7K OHM J |
| R7718        | 24011472  | CHIP, METAL FILM, 1/20W 4.7K OHM J |
| R7720        | 24384221  | METAL OXIDE FILM, 3W 220 J         |
| R7721        | 24547189  | FUSIBLE, 1W 1.8 OHM J              |
| R7722        | 24011472  | CHIP, METAL FILM, 1/20W 4.7K OHM J |
| R7723        | 24011472  | CHIP, METAL FILM, 1/20W 4.7K OHM J |
| R7725        | 24384221  | METAL OXIDE FILM, 3W 220 J         |
| R7726        | 24547189  | FUSIBLE, 1W 1.8 OHM J              |
| R7727        | 24011472  | CHIP, METAL FILM, 1/20W 4.7K OHM J |
| R7728        | 24011472  | CHIP, METAL FILM, 1/20W 4.7K OHM J |
| R7730        | 24384221  | METAL OXIDE FILM, 3W 220 J         |
| R7731        | 24547189  | FUSIBLE, 1W 1.8 OHM J              |
| R7732        | 24011472  | CHIP, METAL FILM, 1/20W 4.7K OHM J |
| R7733        | 24011472  | CHIP, METAL FILM, 1/20W 4.7K OHM J |
| R7735        | 24384221  | METAL OXIDE FILM, 3W 220 J         |
| R7736        | 24547189  | FUSIBLE, 1W 1.8 OHM J              |
| R7767        | 24011153  | CHIP, METAL FILM, 1/20W 15K OHM J  |
| R7775        | 24011333  | CHIP, METAL FILM, 1/20W 33K OHM J  |
| R7776        | 24011103  | CHIP, METAL FILM, 1/20W 10K OHM J  |
| R7777        | 24011474  | CHIP, METAL FILM, 1/20W 470K OHM J |
| R7778        | 24011472  | CHIP, METAL FILM, 1/20W 4.7K OHM J |
| R7779        | 24011102  | CHIP, METAL FILM, 1/20W 1K OHM J   |
| R7781        | 24011333  | CHIP, METAL FILM, 1/20W 33K OHM J  |
| R7786        | 24011101  | CHIP, METAL FILM, 1/20W 100 OHM J  |
| R7788        | 24366221  | CARBON FILM, 1/6W 220 OHM J        |
| R7790        | 24011472  | CHIP, METAL FILM, 1/20W 4.7K OHM J |
| R7799        | 24011684  | CHIP, METAL FILM, 1/20W 680K OHM J |
| R7836        | 24366472  | CARBON FILM, 1/6W 4.7K OHM J       |
| R7837        | 24366470  | CARBON FILM, 1/6W 47 OHM J         |
| R7841        | 24366101  | CARBON FILM, 1/6W 100 OHM J        |
| R7842        | 24366472  | CARBON FILM, 1/6W 4.7K OHM J       |
| R7843        | 24366681  | CARBON FILM, 1/6W 680 OHM J        |
| R7844        | 24366472  | CARBON FILM, 1/6W 4.7K OHM J       |
| R7845        | 24366681  | CARBON FILM, 1/6W 680 OHM J        |
| R7846        | 24366103  | CARBON FILM, 1/6W 10K OHM J        |
| R7847        | 24366103  | CARBON FILM, 1/6W 10K OHM J        |
| R7848        | 24366222  | CARBON FILM, 1/6W 2.2K OHM J       |
| R7861        | 24366472  | CARBON FILM, 1/6W 4.7K OHM J       |
| R7862        | 24366222  | CARBON FILM, 1/6W 2.2K OHM J       |
| R7864        | 24011101  | CHIP, METAL FILM, 1/20W 100 OHM J  |
| R7865        | 24366471  | CARBON FILM, 1/6W 470 OHM J        |
| R7868        | 24011752  | CHIP, METAL FILM, 1/20W 7.5K OHM J |
| R7872        | 24011103  | CHIP, METAL FILM, 1/20W 10K OHM J  |
| R7880        | 24011221  | CHIP, METAL FILM, 1/20W 220 OHM J  |
| R7881        | 24011472  | CHIP, METAL FILM, 1/20W 4.7K OHM J |
| R7882        | 24011103  | CHIP, METAL FILM, 1/20W 10K OHM J  |
| R7883        | 24011103  | CHIP, METAL FILM, 1/20W 10K OHM J  |
| R7890        | 24011561  | CHIP, METAL FILM, 1/20W 560 OHM J  |
| R7891        | 24011561  | CHIP, METAL FILM, 1/20W 560 OHM J  |
| R7903        | 24011472  | CHIP, METAL FILM, 1/20W 4.7K OHM J |
| R7904        | 24000203  | METAL FILM, 1/4W 27K OHM F         |
| R7906        | 24011562  | CHIP, METAL FILM, 1/20W 5.6K OHM J |
| R7907        | 24011104  | CHIP, METAL FILM, 1/20W 100K OHM J |

| Location No. | Parts No. | Description                        |
|--------------|-----------|------------------------------------|
| R7908        | 24366222  | CARBON FILM, 1/6W 2.2K OHM J       |
| R7909        | 24011562  | CHIP, METAL FILM, 1/20W 5.6K OHM J |
| R7910        | 24011331  | CHIP, METAL FILM, 1/20W 330 OHM J  |
| R7911        | 24011561  | CHIP, METAL FILM, 1/20W 560 OHM J  |
| R7912        | 24011331  | CHIP, METAL FILM, 1/20W 330 OHM J  |
| R7913        | 24011331  | CHIP, METAL FILM, 1/20W 330 OHM J  |
| R7914        | 24381182  | OXIDE METAL FILM, 1/2W 1.8K OHM J  |
| R7921        | 24011101  | CHIP, METAL FILM, 1/20W 100 OHM J  |
| R7922        | 24011101  | CHIP, METAL FILM, 1/20W 100 OHM J  |
| R7923        | 24011101  | CHIP, METAL FILM, 1/20W 100 OHM J  |
| R7930        | 24011101  | CHIP, METAL FILM, 1/20W 100 OHM J  |
| R7932        | 24011472  | CHIP, METAL FILM, 1/20W 4.7K OHM J |
| R7942        | 24011472  | CHIP, METAL FILM, 1/20W 4.7K OHM J |
| R7943        | 24011472  | CHIP, METAL FILM, 1/20W 4.7K OHM J |
| R9501        | 24366101  | CARBON FILM, 1/6W 100 OHM J        |
| R9503        | 24366681  | CARBON FILM, 1/6W 680 OHM J        |
| R9507        | 24366330  | CARBON FILM, 1/6W 33 OHM J         |
| R9607        | 24366101  | CARBON FILM, 1/6W 100 OHM J        |
| R9608        | 24366681  | CARBON FILM, 1/6W 680 OHM J        |
| R9620        | 24366330  | CARBON FILM, 1/6W 33 OHM J         |
| RA01         | 24011102  | CHIP, METAL FILM, 1/20W 1K OHM J   |
| RA02         | 24011101  | CHIP, METAL FILM, 1/20W 100 OHM J  |
| RA03         | 24011101  | CHIP, METAL FILM, 1/20W 100 OHM J  |
| RA04         | 24011102  | CHIP, METAL FILM, 1/20W 1K OHM J   |
| RA05         | 24011102  | CHIP, METAL FILM, 1/20W 1K OHM J   |
| RA07         | 24011102  | CHIP, METAL FILM, 1/20W 1K OHM J   |
| RA08         | 24011102  | CHIP, METAL FILM, 1/20W 1K OHM J   |
| RA09         | 24011102  | CHIP, METAL FILM, 1/20W 1K OHM J   |
| RA10         | 24011102  | CHIP, METAL FILM, 1/20W 1K OHM J   |
| RA11         | 24011101  | CHIP, METAL FILM, 1/20W 100 OHM J  |
| RA12         | 24011102  | CHIP, METAL FILM, 1/20W 1K OHM J   |
| RA13         | 24011102  | CHIP, METAL FILM, 1/20W 1K OHM J   |
| RA14         | 24011102  | CHIP, METAL FILM, 1/20W 1K OHM J   |
| RA15         | 24011102  | CHIP, METAL FILM, 1/20W 1K OHM J   |
| RA16         | 24011102  | CHIP, METAL FILM, 1/20W 1K OHM J   |
| RA17         | 24011101  | CHIP, METAL FILM, 1/20W 100 OHM J  |
| RA19         | 24011101  | CHIP, METAL FILM, 1/20W 100 OHM J  |
| RA20         | 24011101  | CHIP, METAL FILM, 1/20W 100 OHM J  |
| RA21         | 24011101  | CHIP, METAL FILM, 1/20W 100 OHM J  |
| RA22         | 24011102  | CHIP, METAL FILM, 1/20W 1K OHM J   |
| RA23         | 24011102  | CHIP, METAL FILM, 1/20W 1K OHM J   |
| RA24         | 24011682  | CHIP, METAL FILM, 1/20W 6.8K OHM J |
| RA26         | 24011333  | CHIP, METAL FILM, 1/20W 33K OHM J  |
| RA28         | 24011101  | CHIP, METAL FILM, 1/20W 100 OHM J  |
| RA30         | 24011101  | CHIP, METAL FILM, 1/20W 100 OHM J  |
| RA32         | 24011682  | CHIP, METAL FILM, 1/20W 6.8K OHM J |
| RA35         | 24011152  | CHIP, METAL FILM, 1/20W 1.5K OHM J |
| RA36         | 24011332  | CHIP, METAL FILM, 1/20W 3.3K OHM J |
| RA37         | 24011101  | CHIP, METAL FILM, 1/20W 100 OHM J  |
| RA38         | 24011101  | CHIP, METAL FILM, 1/20W 100 OHM J  |
| RA39         | 24011101  | CHIP, METAL FILM, 1/20W 100 OHM J  |
| RA40         | 24011101  | CHIP, METAL FILM, 1/20W 100 OHM J  |
| RA41         | 24011332  | CHIP, METAL FILM, 1/20W 3.3K OHM J |
| RA42         | 24011151  | CHIP, METAL FILM, 1/20W 150 OHM J  |
| RA43         | 24011102  | CHIP, METAL FILM, 1/20W 1K OHM J   |
| RA44         | 24011102  | CHIP, METAL FILM, 1/20W 1K OHM J   |
| RA45         | 24011102  | CHIP, METAL FILM, 1/20W 1K OHM J   |
| RA46         | 24011102  | CHIP, METAL FILM, 1/20W 1K OHM J   |
| RA49         | 24011102  | CHIP, METAL FILM, 1/20W 1K OHM J   |
| RA50         | 24011101  | CHIP, METAL FILM, 1/20W 100 OHM J  |
| RA51         | 24011101  | CHIP, METAL FILM, 1/20W 100 OHM J  |
| RA52         | 24011103  | CHIP, METAL FILM, 1/20W 10K OHM J  |
| RA53         | 24011102  | CHIP, METAL FILM, 1/20W 1K OHM J   |
| RA54         | 24011332  | CHIP, METAL FILM, 1/20W 3.3K OHM J |
| RA55         | 24011102  | CHIP, METAL FILM, 1/20W 1K OHM J   |

| Location No. | Parts No. | Description                        |
|--------------|-----------|------------------------------------|
| RA56         | 24011101  | CHIP, METAL FILM, 1/20W 100 OHM J  |
| RA57         | 24011101  | CHIP, METAL FILM, 1/20W 100 OHM J  |
| RA58         | 24011101  | CHIP, METAL FILM, 1/20W 100 OHM J  |
| RA59         | 24011101  | CHIP, METAL FILM, 1/20W 100 OHM J  |
| RA60         | 24011101  | CHIP, METAL FILM, 1/20W 100 OHM J  |
| RA71         | 24366273  | CARBON FILM, 1/6W 27K OHM J        |
| RA72         | 24366153  | CARBON FILM, 1/6W 15K OHM J        |
| RA72         | 24011332  | CHIP, METAL FILM, 1/20W 3.3K OHM J |
| RA73         | 24366822  | CARBON FILM, 1/6W 8.2K OHM J       |
| RA73         | 24011471  | CHIP, METAL FILM, 1/20W 470 OHM J  |
| RA74         | 24011153  | CHIP, METAL FILM, 1/20W 15K OHM J  |
| RA75         | 24011153  | CHIP, METAL FILM, 1/20W 15K OHM J  |
| RA76         | 24366822  | CARBON FILM, 1/6W 8.2K OHM J       |
| RA76         | 24011103  | CHIP, METAL FILM, 1/20W 10K OHM J  |
| RA77         | 24366153  | CARBON FILM, 1/6W 15K OHM J        |
| RA77         | 24011103  | CHIP, METAL FILM, 1/20W 15K OHM J  |
| RA78         | 24366273  | CARBON FILM, 1/6W 27K OHM J        |
| RA78         | 24011333  | CHIP, METAL FILM, 1/20W 33K OHM J  |
| RA79         | 24366823  | CARBON FILM, 1/6W 82K OHM J        |
| RA79         | 24011333  | CHIP, METAL FILM, 1/20W 33K OHM J  |
| RA80         | 24011101  | CHIP, METAL FILM, 1/20W 100 OHM J  |
| RA81         | 24011473  | CHIP, METAL FILM, 1/20W 47K OHM J  |
| RA021        | 24011101  | CHIP, METAL FILM, 1/20W 100 OHM J  |
| RA031        | 24011101  | CHIP, METAL FILM, 1/20W 100 OHM J  |
| RA091        | 24011683  | CHIP, METAL FILM, 1/20W 68K OHM J  |
| RA141        | 24011683  | CHIP, METAL FILM, 1/20W 68K OHM J  |
| RA161        | 24011103  | CHIP, METAL FILM, 1/20W 10K OHM J  |
| RA241        | 24011153  | CHIP, METAL FILM, 1/20W 15K OHM J  |
| RA361        | 24011102  | CHIP, METAL FILM, 1/20W 1K OHM J   |
| RA374        | 24000445  | CHIP JUMPER, 1608TYPE              |
| RA384        | 24000445  | CHIP JUMPER, 1608TYPE              |
| RA394        | 24000445  | CHIP JUMPER, 1608TYPE              |
| RA401        | 24011561  | CHIP, METAL FILM, 1/20W 560 OHM J  |
| RA431        | 24011103  | CHIP, METAL FILM, 1/20W 10K OHM J  |
| RA703        | 24011102  | CHIP, METAL FILM, 1/20W 1K OHM J   |
| RA705        | 24011103  | CHIP, METAL FILM, 1/20W 10K OHM J  |
| RA708        | 24011101  | CHIP, METAL FILM, 1/20W 100 OHM J  |
| RB01         | 24366391  | CARBON FILM, 1/6W 390 OHM J        |
| RB03         | 24011330  | CHIP, METAL FILM, 1/20W 33 OHM J   |
| RB04         | 24366473  | CARBON FILM, 1/6W 47K OHM J        |
| RB05         | 24366102  | CARBON FILM, 1/6W 1K OHM J         |
| RB05         | 24011102  | CHIP, METAL FILM, 1/20W 1K OHM J   |
| RB14         | 24011153  | CHIP, METAL FILM, 1/20W 15K OHM J  |
| RB15         | 24366471  | CARBON FILM, 1/6W 470 OHM J        |
| RB15         | 24011153  | CHIP, METAL FILM, 1/20W 15K OHM J  |
| RB16         | 24011471  | CHIP, METAL FILM, 1/20W 470 OHM J  |
| RB17         | 24011332  | CHIP, METAL FILM, 1/20W 3.3K OHM J |
| RB19         | 24366470  | CARBON FILM, 1/6W 47 OHM J         |
| RB37         | 24011331  | CHIP, METAL FILM, 1/20W 330 OHM J  |
| RB38         | 24011105  | CHIP, METAL FILM, 1/20W 1M OHM J   |
| RB39         | 24011123  | CHIP, METAL FILM, 1/20W 12K OHM J  |
| RB40         | 24011392  | CHIP, METAL FILM, 1/20W 3.9K OHM J |
| RB41         | 24011392  | CHIP, METAL FILM, 1/20W 3.9K OHM J |
| RB42         | 24011103  | CHIP, METAL FILM, 1/20W 10K OHM J  |
| RB43         | 24011331  | CHIP, METAL FILM, 1/20W 330 OHM J  |
| RB44         | 24011105  | CHIP, METAL FILM, 1/20W 1M OHM J   |
| RB45         | 24011123  | CHIP, METAL FILM, 1/20W 12K OHM J  |
| RB46         | 24011392  | CHIP, METAL FILM, 1/20W 3.9K OHM J |
| RB47         | 24011392  | CHIP, METAL FILM, 1/20W 3.9K OHM J |
| RB48         | 24011103  | CHIP, METAL FILM, 1/20W 10K OHM J  |
| RB51         | 24366224  | CARBON FILM, 1/6W 220K OHM J       |
| RB52         | 24366123  | CARBON FILM, 1/6W 12K OHM J        |
| RB53         | 24366123  | CARBON FILM, 1/6W 12K OHM J        |
| RB54         | 24366123  | CARBON FILM, 1/6W 12K OHM J        |
| RB55         | 24366224  | CARBON FILM, 1/6W 220K OHM J       |

| Location No. | Parts No. | Description                        |
|--------------|-----------|------------------------------------|
| RB56         | 24366151  | CARBON FILM, 1/6W 150 OHM J        |
| RB57         | 24366103  | CARBON FILM, 1/6W 10K OHM J        |
| RB58         | 24366103  | CARBON FILM, 1/6W 10K OHM J        |
| RB59         | 24366122  | CARBON FILM, 1/6W 1.2K OHM J       |
| RB60         | 24366224  | CARBON FILM, 1/6W 220K OHM J       |
| RB61         | 24366100  | CARBON FILM, 1/6W 10 OHM J         |
| RB61         | 24011222  | CHIP, METAL FILM, 1/20W 2.2K OHM J |
| RB62         | 24366272  | CARBON FILM, 1/6W 2.7K OHM J       |
| RB62         | 24011103  | CHIP, METAL FILM, 1/20W 10K OHM J  |
| RB63         | 24366271  | CARBON FILM, 1/6W 270 OHM J        |
| RB64         | 24011332  | CHIP, METAL FILM, 1/20W 3.3K OHM J |
| RB65         | 24011392  | CHIP, METAL FILM, 1/20W 3.9K OHM J |
| RB67         | 24366221  | CARBON FILM, 1/6W 220 OHM J        |
| RB69         | 24366272  | CARBON FILM, 1/6W 2.7K OHM J       |
| RB70         | 24366331  | CARBON FILM, 1/6W 330 OHM J        |
| RB81         | 24011122  | CHIP, METAL FILM, 1/20W 1.2K OHM J |
| RB82         | 24011123  | CHIP, METAL FILM, 1/20W 12K OHM J  |
| RB83         | 24011123  | CHIP, METAL FILM, 1/20W 12K OHM J  |
| RB84         | 24011562  | CHIP, METAL FILM, 1/20W 5.6K OHM J |
| RB90         | 24011392  | CHIP, METAL FILM, 1/20W 3.9K OHM J |
| RB91         | 24011473  | CHIP, METAL FILM, 1/20W 47K OHM J  |
| RB92         | 24011271  | CHIP, METAL FILM, 1/20W 270 OHM J  |
| RB93         | 24011271  | CHIP, METAL FILM, 1/20W 270 OHM J  |
| RB94         | 24011222  | CHIP, METAL FILM, 1/20W 2.2K OHM J |
| RB95         | 24011222  | CHIP, METAL FILM, 1/20W 2.2K OHM J |
| RB96         | 24011273  | CHIP, METAL FILM, 1/20W 27K OHM J  |
| RB97         | 24011273  | CHIP, METAL FILM, 1/20W 27K OHM J  |
| RB98         | 24011102  | CHIP, METAL FILM, 1/20W 1K OHM J   |
| RB031        | 24011330  | CHIP, METAL FILM, 1/20W 33 OHM J   |
| RB032        | 24011330  | CHIP, METAL FILM, 1/20W 33 OHM J   |
| RB033        | 24011103  | CHIP, METAL FILM, 1/20W 10K OHM J  |
| RB051        | 24011102  | CHIP, METAL FILM, 1/20W 1K OHM J   |
| RB052        | 24011332  | CHIP, METAL FILM, 1/20W 3.3K OHM J |
| RB501        | 24998100  | CHIP, 1/16W 10 OHM                 |
| RB502        | 24011332  | CHIP, METAL FILM, 1/20W 3.3K OHM J |
| RB503        | 24011332  | CHIP, METAL FILM, 1/20W 3.3K OHM J |
| RB504        | 24011104  | CHIP, METAL FILM, 1/20W 100K OHM J |
| RB505        | 24011101  | CHIP, METAL FILM, 1/20W 100 OHM J  |
| RB506        | 24998101  | CHIP, 1/16W 100 OHM                |
| RB507        | 24998101  | CHIP, 1/16W 100 OHM                |
| RB508        | 24998101  | CHIP, 1/16W 100 OHM                |
| RB509        | 24998101  | CHIP, 1/16W 100 OHM                |
| RB511        | 24011222  | CHIP, METAL FILM, 1/20W 2.2K OHM J |
| RB512        | 24011100  | CHIP, METAL FILM, 1/20W 10 OHM J   |
| RB516        | 24011472  | CHIP, METAL FILM, 1/20W 4.7K OHM J |
| RB517        | 24011472  | CHIP, METAL FILM, 1/20W 4.7K OHM J |
| RB518        | 24011101  | CHIP, METAL FILM, 1/20W 100 OHM J  |
| RB519        | 24011472  | CHIP, METAL FILM, 1/20W 4.7K OHM J |
| RB520        | 24011472  | CHIP, METAL FILM, 1/20W 4.7K OHM J |
| RB521        | 24011472  | CHIP, METAL FILM, 1/20W 4.7K OHM J |
| RB522        | 24011472  | CHIP, METAL FILM, 1/20W 4.7K OHM J |
| RB523        | 24011103  | CHIP, METAL FILM, 1/20W 10K OHM J  |
| RB524        | 24011103  | CHIP, METAL FILM, 1/20W 10K OHM J  |
| RB525        | 24011101  | CHIP, METAL FILM, 1/20W 100 OHM J  |
| RB526        | 24011103  | CHIP, METAL FILM, 1/20W 10K OHM J  |
| RB528        | 24011472  | CHIP, METAL FILM, 1/20W 4.7K OHM J |
| RB529        | 24011472  | CHIP, METAL FILM, 1/20W 4.7K OHM J |
| RB551        | 24011102  | CHIP, METAL FILM, 1/20W 1K OHM J   |
| RB552        | 24011102  | CHIP, METAL FILM, 1/20W 1K OHM J   |
| RB553        | 24011332  | CHIP, METAL FILM, 1/20W 3.3K OHM J |
| RB554        | 24011101  | CHIP, METAL FILM, 1/20W 100 OHM J  |
| RB555        | 24011103  | CHIP, METAL FILM, 1/20W 10K OHM J  |
| RB556        | 24011101  | CHIP, METAL FILM, 1/20W 100 OHM J  |
| RB557        | 24011103  | CHIP, METAL FILM, 1/20W 10K OHM J  |
| RB558        | 24011104  | CHIP, METAL FILM, 1/20W 100K OHM J |

| Location No. | Parts No. | Description                        |
|--------------|-----------|------------------------------------|
| RB559        | 24011103  | CHIP, METAL FILM, 1/20W 10K OHM J  |
| RB560        | 24011103  | CHIP, METAL FILM, 1/20W 10K OHM J  |
| RB561        | 24011101  | CHIP, METAL FILM, 1/20W 100 OHM J  |
| RB562        | 24011104  | CHIP, METAL FILM, 1/20W 100K OHM J |
| RB563        | 24998101  | CHIP, 1/16W 100 OHM                |
| RB564        | 24998101  | CHIP, 1/16W 100 OHM                |
| RB565        | 24998101  | CHIP, 1/16W 100 OHM                |
| RB566        | 24998101  | CHIP, 1/16W 100 OHM                |
| RC01         | 24011101  | CHIP, METAL FILM, 1/20W 100 OHM J  |
| RC01         | 24011101  | CHIP, METAL FILM, 1/20W 100 OHM J  |
| RC02         | 24011101  | CHIP, METAL FILM, 1/20W 100 OHM J  |
| RC02         | 24011101  | CHIP, METAL FILM, 1/20W 100 OHM J  |
| RC03         | 24011101  | CHIP, METAL FILM, 1/20W 100 OHM J  |
| RC03         | 24011473  | CHIP, METAL FILM, 1/20W 47K OHM J  |
| RC04         | 24011101  | CHIP, METAL FILM, 1/20W 100 OHM J  |
| RC05         | 24011101  | CHIP, METAL FILM, 1/20W 100 OHM J  |
| RC05         | 24011103  | CHIP, METAL FILM, 1/20W 10K OHM J  |
| RC06         | 24011101  | CHIP, METAL FILM, 1/20W 100 OHM J  |
| RC06         | 24011103  | CHIP, METAL FILM, 1/20W 10K OHM J  |
| RC07         | 24011101  | CHIP, METAL FILM, 1/20W 100 OHM J  |
| RC07         | 24011103  | CHIP, METAL FILM, 1/20W 10K OHM J  |
| RC08         | 24011101  | CHIP, METAL FILM, 1/20W 100 OHM J  |
| RC08         | 24011103  | CHIP, METAL FILM, 1/20W 10K OHM J  |
| RC09         | 24011102  | CHIP, METAL FILM, 1/20W 1K OHM J   |
| RC09         | 24011221  | CHIP, METAL FILM, 1/20W 1K OHM J   |
| RC10         | 24872101  | CHIP, METAL FILM, 1/16W 100 OHM J  |
| RC10         | 24011221  | CHIP, METAL FILM, 1/20W 220 OHM J  |
| RC11         | 24011222  | CHIP, METAL FILM, 1/20W 2.2K OHM J |
| RC12         | 24011102  | CHIP, METAL FILM, 1/20W 1K OHM J   |
| RC22         | 24011221  | CHIP, METAL FILM, 1/20W 220 OHM J  |
| RC23         | 24011221  | CHIP, METAL FILM, 1/20W 220 OHM J  |
| RC28         | 24011103  | CHIP, METAL FILM, 1/20W 10K OHM J  |
| RC43         | 24011103  | CHIP, METAL FILM, 1/20W 10K OHM J  |
| RC46         | 24011221  | CHIP, METAL FILM, 1/20W 220 OHM J  |
| RE01         | 24510229  | CEMENT, 5W 2.2 OHM J               |
| RE03         | 24322568  | OXIDE METAL FILM, 1W 0.56 OHM J    |
| RE04         | 24322568  | OXIDE METAL FILM, 1W 0.56 OHM J    |
| RE05         | 24381331  | OXIDE FILM, 1/2W 330 J             |
| RE06         | 24366152  | CARBON FILM, 1/6W 1.5K OHM J       |
| RE07         | 24366122  | CARBON FILM, 1/6W 1.2K OHM J       |
| RE08         | 24384683  | METAL OXIDE FILM, B 3W 68K J       |
| RE09         | 24366333  | CARBON FILM, 1/6W 33K OHM J        |
| RE10         | 24381820  | OXIDE METAL FILM, 1/2W 82 OHM J    |
| RE11         | 24366102  | CARBON FILM, 1/6W 1K OHM J         |
| RE12         | 24366683  | CARBON FILM, 1/6W 68K OHM J        |
| RE18         | 24366223  | CARBON FILM, 1/6W 22K OHM J        |
| RE19         | 24366103  | CARBON FILM, 1/6W 10K OHM J        |
| RE20         | 24366222  | CARBON FILM, 1/6W 2.2K OHM J       |
| RE21         | 24366102  | CARBON FILM, 1/6W 1K OHM J         |
| RE22         | 24000220  | METAL FILM, 1/4W 390 OHM F         |
| RE23         | 24000366  | METAL FILM, 1/4W 2.2K OHM F        |
| RE24         | 24000150  | METAL FILM, 1/4W 680 OHM F         |
| RE25         | 24366102  | CARBON FILM, 1/6W 1K OHM J         |
| RE30         | 24366101  | CARBON FILM, 1/6W 10K OHM J        |
| RE32         | 24366102  | CARBON FILM, 1/6W 1K OHM J         |
| RE33         | 24000161  | METAL FILM, 1/4W 27 F              |
| RE34         | 24000135  | METAL FILM, 1/4W 120 F             |
| RE35         | 24000220  | METAL FILM, 1/4W 390 OHM F         |
| RE40         | 24000362  | METAL FILM, 1/4W 1.5K OHM F        |
| RE41         | 24366683  | CARBON FILM, 1/6W 68K OHM J        |
| RE45         | 24383561  | OXIDE METAL FILM, 2W 560 OHM J     |
| RE50         | 24366104  | CARBON FILM, 1/6W 100K OHM J       |
| RE51         | 24366474  | CARBON FILM, 1/6W 470K OHM J       |
| RE52         | 24366102  | CARBON FILM, 1/6W 1K OHM J         |
| RE53         | 24366100  | CARBON FILM, 1/6W 10 OHM J         |

| Location No. | Parts No. | Description                        |
|--------------|-----------|------------------------------------|
| RE54         | 24366332  | CARBON FILM, 1/6W 3.3K OHM J       |
| RE55         | 24366103  | CARBON FILM, 1/6W 10K OHM J        |
| RE56         | 24366221  | CARBON FILM, 1/6W 220 OHM J        |
| RE61         | 24382473  | OXIDE METAL FILM, 1W 47K OHM J     |
| RG5          | 24011103  | CHIP, METAL FILM, 1/20W 10K OHM J  |
| RG6          | 24011103  | CHIP, METAL FILM, 1/20W 10K OHM J  |
| RG30         | 24011102  | CHIP, METAL FILM, 1/20W 1K OHM J   |
| RG31         | 24011332  | CHIP, METAL FILM, 1/20W 3.3K OHM J |
| RG32         | 24011332  | CHIP, METAL FILM, 1/20W 3.3K OHM J |
| RG33         | 24011102  | CHIP, METAL FILM, 1/20W 1K OHM J   |
| RG34         | 24011220  | CHIP, METAL FILM, 1/20W 22 OHM J   |
| RG35         | 24011102  | CHIP, METAL FILM, 1/20W 1K OHM J   |
| RG36         | 24011472  | CHIP, METAL FILM, 1/20W 4.7K OHM J |
| RG37         | 24011103  | CHIP, METAL FILM, 1/20W 10K OHM J  |
| RG38         | 24011220  | CHIP, METAL FILM, 1/20W 22 OHM J   |
| RG39         | 24011222  | CHIP, METAL FILM, 1/20W 2.2K OHM J |
| RG40         | 24011102  | CHIP, METAL FILM, 1/20W 1K OHM J   |
| RG41         | 24011102  | CHIP, METAL FILM, 1/20W 1K OHM J   |
| RG42         | 24011102  | CHIP, METAL FILM, 1/20W 1K OHM J   |
| RG43         | 24011102  | CHIP, METAL FILM, 1/20W 1K OHM J   |
| RG44         | 24011103  | CHIP, METAL FILM, 1/20W 10K OHM J  |
| RG46         | 24011103  | CHIP, METAL FILM, 1/20W 10K OHM J  |
| RG47         | 24011103  | CHIP, METAL FILM, 1/20W 10K OHM J  |
| RG48         | 24011103  | CHIP, METAL FILM, 1/20W 10K OHM J  |
| RG49         | 24011103  | CHIP, METAL FILM, 1/20W 10K OHM J  |
| RG50         | 24011103  | CHIP, METAL FILM, 1/20W 10K OHM J  |
| RG51         | 24011473  | CHIP, METAL FILM, 1/20W 47K OHM J  |
| RG53         | 24011104  | CHIP, METAL FILM, 1/20W 100K OHM J |
| RG55         | 24011223  | CHIP, METAL FILM, 1/20W 22K OHM J  |
| RG56         | 24011472  | CHIP, METAL FILM, 1/20W 4.7K OHM J |
| RG57         | 24011472  | CHIP, METAL FILM, 1/20W 4.7K OHM J |
| RG59         | 24011223  | CHIP, METAL FILM, 1/20W 22K OHM J  |
| RG60         | 24011153  | CHIP, METAL FILM, 1/20W 15K OHM J  |
| RG61         | 24011104  | CHIP, METAL FILM, 1/20W 100K OHM J |
| RG62         | 24011104  | CHIP, METAL FILM, 1/20W 100K OHM J |
| RG63         | 24011104  | CHIP, METAL FILM, 1/20W 100K OHM J |
| RG64         | 24011222  | CHIP, METAL FILM, 1/20W 2.2K OHM J |
| RG65         | 24011222  | CHIP, METAL FILM, 1/20W 2.2K OHM J |
| RG66         | 24872150  | CHIP, METAL FILM, 1/16W 15 OHM J   |
| RG67         | 24011153  | CHIP, METAL FILM, 1/20W 15K OHM J  |
| RG68         | 24011151  | CHIP, METAL FILM, 1/20W 150 OHM J  |
| RG69         | 24011153  | CHIP, METAL FILM, 1/20W 15K OHM J  |
| RG70         | 24011221  | CHIP, METAL FILM, 1/20W 220 OHM J  |
| RG71         | 24871102  | CHIP, METAL FILM, 1/8W 1K OHM J    |
| RG74         | 24871102  | CHIP, METAL FILM, 1/8W 1K OHM J    |
| RG75         | 24011221  | CHIP, METAL FILM, 1/20W 220 OHM J  |
| RG77         | 24011102  | CHIP, METAL FILM, 1/20W 1K OHM J   |
| RG79         | 24011103  | CHIP, METAL FILM, 1/20W 10K OHM J  |
| RG80         | 24011222  | CHIP, METAL FILM, 1/20W 2.2K OHM J |
| RG81         | 24011222  | CHIP, METAL FILM, 1/20W 2.2K OHM J |
| RG94         | 24011101  | CHIP, METAL FILM, 1/20W 100 OHM J  |
| RG96         | 24011101  | CHIP, METAL FILM, 1/20W 100 OHM J  |
| RG201        | 24366101  | CARBON FILM, 1/6W 100 OHM J        |
| RG202        | 24366101  | CARBON FILM, 1/6W 100 OHM J        |
| RG203        | 24366101  | CARBON FILM, 1/6W 100 OHM J        |
| RG204        | 24366101  | CARBON FILM, 1/6W 100 OHM J        |
| RG205        | 24366101  | CARBON FILM, 1/6W 100 OHM J        |
| RG206        | 24366101  | CARBON FILM, 1/6W 100 OHM J        |
| RG207        | 24366471  | CARBON FILM, 1/6W 470 OHM J        |
| RG208        | 24366471  | CARBON FILM, 1/6W 470 OHM J        |
| RG209        | 24366470  | CARBON FILM, 1/6W 47 OHM J         |
| RG210        | 24366104  | CARBON FILM, 1/6W 100K OHM J       |
| RG211        | 24366104  | CARBON FILM, 1/6W 100K OHM J       |
| RG216        | 24366102  | CARBON FILM, 1/6W 1K OHM J         |
| RG217        | 24366102  | CARBON FILM, 1/6W 1K OHM J         |

| Location No. | Parts No. | Description                        |
|--------------|-----------|------------------------------------|
| RI01         | 24011270  | CHIP, METAL FILM, 1/20W 27 OHM J   |
| RI02         | 24011512  | CHIP, METAL FILM, 1/20W 5.1K OHM J |
| RI03         | 24011102  | CHIP, METAL FILM, 1/20W 1K OHM J   |
| RI04         | 24011470  | CHIP, METAL FILM, 1/20W 47 OHM J   |
| RI05         | 24011361  | CHIP, METAL FILM, 1/20W 360 OHM J  |
| RI06         | 24011519  | METAL FILM CHIP, 1/16W 5.1 J       |
| RI07         | 24011360  | METAL FILM CHIP, 1/20W 36 J        |
| RI08         | 24011332  | CHIP, METAL FILM, 1/20W 3.3K OHM J |
| RI09         | 24011123  | CHIP, METAL FILM, 1/20W 12K OHM J  |
| RI11         | 24011113  | CHIP, METAL FILM, 1/20W 11K OHM J  |
| RI13         | 24011112  | CHIP, METAL FILM, 1/20W 1.1K OHM J |
| RI14         | 24011102  | CHIP, METAL FILM, 1/20W 1K OHM J   |
| RI15         | 24011182  | CHIP, METAL FILM, 1/20W 1.8K OHM J |
| RI16         | 24011122  | CHIP, METAL FILM, 1/20W 1.2K OHM J |
| RI17         | 24011101  | CHIP, METAL FILM, 1/20W 100 OHM J  |
| RI18         | 24011132  | CHIP, METAL FILM, 1/20W 1.3K OHM J |
| RI19         | 24011391  | CHIP, METAL FILM, 1/20W 390 OHM J  |
| RI20         | 24011821  | CHIP, METAL FILM, 1/20W 820 OHM J  |
| RI21         | 24011271  | CHIP, METAL FILM, 1/20W 270 OHM J  |
| RI22         | 24011475  | METAL FILM CHIP, 1/16W 4R7M K      |
| RI23         | 24011221  | CHIP, METAL FILM, 1/20W 220 OHM J  |
| RI27         | 24011103  | CHIP, METAL FILM, 1/20W 10K OHM J  |
| RI28         | 24011123  | CHIP, METAL FILM, 1/20W 12K OHM J  |
| RI30         | 24011102  | CHIP, METAL FILM, 1/20W 1K OHM J   |
| RI32         | 24366750  | CARBON FILM, 1/6W 75 OHM J         |
| RI33         | 24011124  | CHIP, METAL FILM, 1/20W 120K OHM J |
| RI35         | 24011563  | CHIP, METAL FILM, 1/20W 56K OHM J  |
| RI36         | 24011683  | CHIP, METAL FILM, 1/20W 68K OHM J  |
| RI51         | 24066046  | VARIABLE. CARBON, 0.1W 20K N       |
| RI52         | 24011101  | CHIP, METAL FILM, 1/20W 100 OHM J  |
| RJ41         | 24000445  | CHIP JUMPER, 1608TYPE              |
| RJ42         | 24000445  | CHIP JUMPER, 1608TYPE              |
| RJ43         | 24000445  | CHIP JUMPER, 1608TYPE              |
| RJ44         | 24000445  | CHIP JUMPER, 1608TYPE              |
| RJ45         | 24000445  | CHIP JUMPER, 1608TYPE              |
| RJ46         | 24000445  | CHIP JUMPER, 1608TYPE              |
| RJ47         | 24000445  | CHIP JUMPER, 1608TYPE              |
| RR52         | 24011102  | CHIP, METAL FILM, 1/20W 1K OHM J   |
| RR53         | 24011471  | CHIP, METAL FILM, 1/20W 470 OHM J  |
| RR54         | 24011102  | CHIP, METAL FILM, 1/20W 1K OHM J   |
| RR55         | 24011471  | CHIP, METAL FILM, 1/20W 470 OHM J  |
| RR56         | 24011102  | CHIP, METAL FILM, 1/20W 1K OHM J   |
| RR57         | 24011471  | CHIP, METAL FILM, 1/20W 470 OHM J  |
| RR61         | 24011222  | CHIP, METAL FILM, 1/20W 2.2K OHM J |
| RR62         | 24011222  | CHIP, METAL FILM, 1/20W 2.2K OHM J |
| RR63         | 24011222  | CHIP, METAL FILM, 1/20W 2.2K OHM J |
| RS01         | 24011562  | CHIP, METAL FILM, 1/20W 5.6K OHM J |
| RS02         | 24011562  | CHIP, METAL FILM, 1/20W 5.6K OHM J |
| RS03         | 24011562  | CHIP, METAL FILM, 1/20W 5.6K OHM J |
| RS04         | 24011562  | CHIP, METAL FILM, 1/20W 5.6K OHM J |
| RS05         | 24011562  | CHIP, METAL FILM, 1/20W 5.6K OHM J |
| RS06         | 24011562  | CHIP, METAL FILM, 1/20W 5.6K OHM J |
| RS07         | 24011562  | CHIP, METAL FILM, 1/20W 5.6K OHM J |
| RS08         | 24011562  | CHIP, METAL FILM, 1/20W 5.6K OHM J |
| RS09         | 24011562  | CHIP, METAL FILM, 1/20W 5.6K OHM J |
| RS10         | 24011562  | CHIP, METAL FILM, 1/20W 5.6K OHM J |
| RS11         | 24011101  | CHIP, METAL FILM, 1/20W 100 OHM J  |
| RS12         | 24011101  | CHIP, METAL FILM, 1/20W 100 OHM J  |
| RS13         | 24011562  | CHIP, METAL FILM, 1/20W 5.6K OHM J |
| RS14         | 24011562  | CHIP, METAL FILM, 1/20W 5.6K OHM J |
| RS15         | 24011101  | CHIP, METAL FILM, 1/20W 100 OHM J  |
| RS16         | 24011101  | CHIP, METAL FILM, 1/20W 100 OHM J  |
| RS17         | 24011101  | CHIP, METAL FILM, 1/20W 100 OHM J  |
| RS18         | 24011101  | CHIP, METAL FILM, 1/20W 100 OHM J  |
| RS19         | 24011101  | CHIP, METAL FILM, 1/20W 100 OHM J  |

| Location No. | Parts No. | Description                        |
|--------------|-----------|------------------------------------|
| RS20         | 24011101  | CHIP, METAL FILM, 1/20W 100 OHM J  |
| RS21         | 24011222  | CHIP, METAL FILM, 1/20W 2.2K OHM J |
| RS22         | 24011222  | CHIP, METAL FILM, 1/20W 2.2K OHM J |
| RS23         | 24011101  | CHIP, METAL FILM, 1/20W 100 OHM J  |
| RS24         | 24011101  | CHIP, METAL FILM, 1/20W 100 OHM J  |
| RS25         | 24011101  | CHIP, METAL FILM, 1/20W 100 OHM J  |
| RS26         | 24011101  | CHIP, METAL FILM, 1/20W 100 OHM J  |
| RS29         | 24011102  | CHIP, METAL FILM, 1/20W 1K OHM J   |
| RS30         | 24011102  | CHIP, METAL FILM, 1/20W 1K OHM J   |
| RS31         | 24011104  | CHIP, METAL FILM, 1/20W 100K OHM J |
| RS32         | 24011104  | CHIP, METAL FILM, 1/20W 100K OHM J |
| RS33         | 24011223  | CHIP, METAL FILM, 1/20W 22K OHM J  |
| RS34         | 24011223  | CHIP, METAL FILM, 1/20W 22K OHM J  |
| RS35         | 24011473  | CHIP, METAL FILM, 1/20W 47K OHM J  |
| RS37         | 24011473  | CHIP, METAL FILM, 1/20W 47K OHM J  |
| RS38         | 24011473  | CHIP, METAL FILM, 1/20W 47K OHM J  |
| RS39         | 24011473  | CHIP, METAL FILM, 1/20W 47K OHM J  |
| RS40         | 24011473  | CHIP, METAL FILM, 1/20W 47K OHM J  |
| RS41         | 24011473  | CHIP, METAL FILM, 1/20W 47K OHM J  |
| RS42         | 24011473  | CHIP, METAL FILM, 1/20W 47K OHM J  |
| RS44         | 24011473  | CHIP, METAL FILM, 1/20W 47K OHM J  |
| RS45         | 24011103  | CHIP, METAL FILM, 1/20W 10K OHM J  |
| RS46         | 24011103  | CHIP, METAL FILM, 1/20W 10K OHM J  |
| RS47         | 24011473  | CHIP, METAL FILM, 1/20W 47K OHM J  |
| RS48         | 24011473  | CHIP, METAL FILM, 1/20W 47K OHM J  |
| RS49         | 24011473  | CHIP, METAL FILM, 1/20W 47K OHM J  |
| RS50         | 24011473  | CHIP, METAL FILM, 1/20W 47K OHM J  |
| RS51         | 24011272  | CHIP, METAL FILM, 1/20W 2.7K OHM J |
| RS52         | 24011104  | CHIP, METAL FILM, 1/20W 100K OHM J |
| RS55         | 24011103  | CHIP, METAL FILM, 1/20W 10K OHM J  |
| RS56         | 24011104  | CHIP, METAL FILM, 1/20W 100K OHM J |
| RS57         | 24011562  | CHIP, METAL FILM, 1/20W 5.6K OHM J |
| RS58         | 24011562  | CHIP, METAL FILM, 1/20W 5.6K OHM J |
| RS59         | 24011562  | CHIP, METAL FILM, 1/20W 5.6K OHM J |
| RS60         | 24011562  | CHIP, METAL FILM, 1/20W 5.6K OHM J |
| RS61         | 24011101  | CHIP, METAL FILM, 1/20W 100 OHM J  |
| RS62         | 24011101  | CHIP, METAL FILM, 1/20W 100 OHM J  |
| RS63         | 24011102  | CHIP, METAL FILM, 1/20W 1K OHM J   |
| RS64         | 24011393  | CHIP, METAL FILM, 1/20W 39K OHM J  |
| RS65         | 24011563  | CHIP, METAL FILM, 1/20W 56K OHM J  |
| RS66         | 24011393  | CHIP, METAL FILM, 1/20W 39K OHM J  |
| RS67         | 24011563  | CHIP, METAL FILM, 1/20W 56K OHM J  |
| RS120        | 24554561  | OXIDE METAL FILM, 2W 560 OHM J     |
| RS121        | 24011103  | CHIP, METAL FILM, 1/20W 10K OHM J  |
| RS122        | 24011103  | CHIP, METAL FILM, 1/20W 10K OHM J  |
| RS123        | 24011103  | CHIP, METAL FILM, 1/20W 10K OHM J  |
| RS124        | 24011103  | CHIP, METAL FILM, 1/20W 10K OHM J  |
| RS125        | 24000445  | CHIP JUMPER, 1608TYPE              |
| RS126        | 24011472  | CHIP, METAL FILM, 1/20W 4.7K OHM J |
| RV01         | 24011101  | CHIP, METAL FILM, 1/20W 100 OHM J  |
| RV03         | 24011101  | CHIP, METAL FILM, 1/20W 100 OHM J  |
| RV06         | 24011101  | CHIP, METAL FILM, 1/20W 100 OHM J  |
| RV07         | 24011102  | CHIP, METAL FILM, 1/20W 1K OHM J   |
| RV08         | 24011101  | CHIP, METAL FILM, 1/20W 100 OHM J  |
| RV09         | 24011101  | CHIP, METAL FILM, 1/20W 100 OHM J  |
| RV10         | 24011101  | CHIP, METAL FILM, 1/20W 100 OHM J  |
| RV11         | 24011101  | CHIP, METAL FILM, 1/20W 100 OHM J  |
| RV12         | 24011101  | CHIP, METAL FILM, 1/20W 100 OHM J  |
| RV14         | 24011562  | CHIP, METAL FILM, 1/20W 5.6K OHM J |
| RV15         | 24011101  | CHIP, METAL FILM, 1/20W 100 OHM J  |
| RV17         | 24011101  | CHIP, METAL FILM, 1/20W 100 OHM J  |
| RV19         | 24011101  | CHIP, METAL FILM, 1/20W 100 OHM J  |
| RV20         | 24366750  | CARBON FILM, 1/6W 75 OHM J         |
| RV20         | 24011101  | CHIP, METAL FILM, 1/20W 100 OHM J  |
| RV21         | 24366750  | CARBON FILM, 1/6W 75 OHM J         |

| Location No. | Parts No. | Description                        |
|--------------|-----------|------------------------------------|
| RV21         | 24011101  | CHIP, METAL FILM, 1/20W 100 OHM J  |
| RV22         | 24366750  | CARBON FILM, 1/6W 75 OHM J         |
| RV23         | 24366332  | CARBON FILM, 1/6W 3.3K OHM J       |
| RV26         | 24011561  | CHIP, METAL FILM, 1/20W 560 OHM J  |
| RV27         | 24011101  | CHIP, METAL FILM, 1/20W 100 OHM J  |
| RV29         | 24552101  | OXIDE METAL FILM, 1/2W 100 OHM J   |
| RV30         | 24011101  | CHIP, METAL FILM, 1/20W 100 OHM J  |
| RV33         | 24011750  | CHIP, METAL FILM, 1/20W 75 OHM J   |
| RV34         | 24011750  | CHIP, METAL FILM, 1/20W 75 OHM J   |
| RV35         | 24011750  | CHIP, METAL FILM, 1/20W 75 OHM J   |
| RV36         | 24011750  | CHIP, METAL FILM, 1/20W 75 OHM J   |
| RV37         | 24011750  | CHIP, METAL FILM, 1/20W 75 OHM J   |
| RV38         | 24872184  | CHIP, METAL FILM, 1/16W 180K OHM J |
| RV39         | 24872334  | CHIP, METAL FILM, 1/16W 330K OHM J |
| RV40         | 24011750  | CHIP, METAL FILM, 1/20W 75 OHM J   |
| RV41         | 24011101  | CHIP, METAL FILM, 1/20W 100 OHM J  |
| RV60         | 24011222  | CHIP, METAL FILM, 1/20W 2.2K OHM J |
| RV61         | 24011101  | CHIP, METAL FILM, 1/20W 100 OHM J  |
| RV62         | 24011101  | CHIP, METAL FILM, 1/20W 100 OHM J  |
| RV66         | 24011750  | CHIP, METAL FILM, 1/20W 75 OHM J   |
| RV70         | 24011101  | CHIP, METAL FILM, 1/20W 100 OHM J  |
| RV71         | 24011222  | CHIP, METAL FILM, 1/20W 2.2K OHM J |
| RV72         | 24011222  | CHIP, METAL FILM, 1/20W 2.2K OHM J |
| RV73         | 24011222  | CHIP, METAL FILM, 1/20W 2.2K OHM J |
| RV74         | 24011222  | CHIP, METAL FILM, 1/20W 2.2K OHM J |
| RV75         | 24011222  | CHIP, METAL FILM, 1/20W 2.2K OHM J |
| RV76         | 24011272  | CHIP, METAL FILM, 1/20W 2.7K OHM J |
| RV77         | 24011101  | CHIP, METAL FILM, 1/20W 100 OHM J  |
| RV78         | 24011101  | CHIP, METAL FILM, 1/20W 100 OHM J  |
| RV79         | 24011272  | CHIP, METAL FILM, 1/20W 2.7K OHM J |
| RV80         | 24366750  | CARBON FILM, 1/6W 75 OHM J         |
| RV82         | 24011562  | CHIP, METAL FILM, 1/20W 5.6K OHM J |
| RV84         | 24011562  | CHIP, METAL FILM, 1/20W 5.6K OHM J |
| RV85         | 24011222  | CHIP, METAL FILM, 1/20W 2.2K OHM J |
| RV86         | 24011222  | CHIP, METAL FILM, 1/20W 2.2K OHM J |
| RV94         | 24011222  | CHIP, METAL FILM, 1/20W 2.2K OHM J |
| RV95         | 24011222  | CHIP, METAL FILM, 1/20W 2.2K OHM J |
| RV96         | 24011102  | CHIP, METAL FILM, 1/20W 1K OHM J   |
| RV97         | 24011470  | CHIP, METAL FILM, 1/20W 47 OHM J   |
| RV141        | 24011302  | CHIP, METAL FILM, 1/20W 3K OHM J   |
| RV323        | 24872101  | CHIP, METAL FILM, 1/16W 100 OHM J  |
| RV324        | 24872101  | CHIP, METAL FILM, 1/16W 100 OHM J  |
| RV325        | 24872101  | CHIP, METAL FILM, 1/16W 100 OHM J  |
| RV330        | 24011101  | CHIP, METAL FILM, 1/20W 100 OHM J  |
| RV331        | 24011101  | CHIP, METAL FILM, 1/20W 100 OHM J  |
| RV332        | 24011101  | CHIP, METAL FILM, 1/20W 100 OHM J  |
| RV337        | 24011101  | CHIP, METAL FILM, 1/20W 100 OHM J  |
| RV338        | 24011101  | CHIP, METAL FILM, 1/20W 100 OHM J  |
| RV346        | 24011101  | CHIP, METAL FILM, 1/20W 100 OHM J  |
| RV347        | 24011101  | CHIP, METAL FILM, 1/20W 100 OHM J  |
| RV348        | 24011101  | CHIP, METAL FILM, 1/20W 100 OHM J  |
| RV351        | 24011330  | CHIP, METAL FILM, 1/20W 33 OHM J   |
| RV352        | 24011330  | CHIP, METAL FILM, 1/20W 33 OHM J   |
| RV353        | 24011330  | CHIP, METAL FILM, 1/20W 33 OHM J   |
| RV354        | 24011330  | CHIP, METAL FILM, 1/20W 33 OHM J   |
| RV355        | 24011330  | CHIP, METAL FILM, 1/20W 33 OHM J   |
| RV356        | 24011330  | CHIP, METAL FILM, 1/20W 33 OHM J   |
| RY101        | 24011101  | CHIP, METAL FILM, 1/20W 100 OHM J  |
| RY102        | 24011221  | CHIP, METAL FILM, 1/20W 220 OHM J  |
| RY103        | 24011102  | CHIP, METAL FILM, 1/20W 1K OHM J   |
| RY104        | 24011102  | CHIP, METAL FILM, 1/20W 1K OHM J   |
| RY105        | 24011821  | CHIP, METAL FILM, 1/20W 820 OHM J  |
| RY106        | 24000445  | CHIP JUMPER, 1608TYPE              |
| RY107        | 24011222  | CHIP, METAL FILM, 1/20W 2.2K OHM J |
| RY109        | 24011332  | CHIP, METAL FILM, 1/20W 3.3K OHM J |

| Location No.                    | Parts No. | Description                                               |
|---------------------------------|-----------|-----------------------------------------------------------|
| RY110                           | 24011152  | CHIP, METAL FILM, 1/20W 1.5K OHM J                        |
| RY501                           | 24011303  | CHIP, METAL FILM, 1/20W 30K OHM J                         |
| RY502                           | 24011103  | CHIP, METAL FILM, 1/20W 10K OHM J                         |
| RY503                           | 24011223  | CHIP, METAL FILM, 1/20W 22K OHM J                         |
| RY504                           | 24011103  | CHIP, METAL FILM, 1/20W 10K OHM J                         |
| RY505                           | 24011123  | CHIP, METAL FILM, 1/20W 12K OHM J                         |
| RY507                           | 24011472  | CHIP, METAL FILM, 1/20W 4.7K OHM J                        |
| RY508                           | 24011222  | CHIP, METAL FILM, 1/20W 2.2K OHM J                        |
| RY509                           | 24011472  | CHIP, METAL FILM, 1/20W 4.7K OHM J                        |
| RY510                           | 24011152  | CHIP, METAL FILM, 1/20W 1.5K OHM J                        |
| RY511                           | 24011222  | CHIP, METAL FILM, 1/20W 2.2K OHM J                        |
| RY512                           | 24011222  | CHIP, METAL FILM, 1/20W 2.2K OHM J                        |
| RY513                           | 24011152  | CHIP, METAL FILM, 1/20W 1.5K OHM J                        |
| RY516                           | 24011472  | CHIP, METAL FILM, 1/20W 4.7K OHM J                        |
| RY517                           | 24011472  | CHIP, METAL FILM, 1/20W 4.7K OHM J                        |
| RY518                           | 24011472  | CHIP, METAL FILM, 1/20W 4.7K OHM J                        |
| RY519                           | 24000445  | CHIP JUMPER, 1608TYPE                                     |
| RY520                           | 24011101  | CHIP, METAL FILM, 1/20W 100 OHM J                         |
| RY521                           | 24011101  | CHIP, METAL FILM, 1/20W 100 OHM J                         |
| RY523                           | 24011332  | CHIP, METAL FILM, 1/20W 3.3K OHM J                        |
| RY524                           | 24011182  | CHIP, METAL FILM, 1/20W 1.8K OHM J                        |
| RY525                           | 24011222  | CHIP, METAL FILM, 1/20W 2.2K OHM J                        |
| RY526                           | 24011222  | CHIP, METAL FILM, 1/20W 2.2K OHM J                        |
| RY527                           | 24011222  | CHIP, METAL FILM, 1/20W 2.2K OHM J                        |
| RY528                           | 24011222  | CHIP, METAL FILM, 1/20W 2.2K OHM J                        |
| RY529                           | 24011102  | CHIP, METAL FILM, 1/20W 1K OHM J                          |
| RY532                           | 24011101  | CHIP, METAL FILM, 1/20W 100 OHM J                         |
| RY533                           | 24000445  | CHIP JUMPER, 1608TYPE                                     |
| RY534                           | 24000445  | CHIP JUMPER, 1608TYPE                                     |
| RY541                           | 24011682  | CHIP, METAL FILM, 1/20W 6.8K OHM J                        |
| RY542                           | 24011392  | CHIP, METAL FILM, 1/20W 3.9K OHM J                        |
| RY543                           | 24011152  | CHIP, METAL FILM, 1/20W 1.5K OHM J                        |
| RY545                           | 24011101  | CHIP, METAL FILM, 1/20W 100 OHM J                         |
| RY548                           | 24011102  | CHIP, METAL FILM, 1/20W 1K OHM J                          |
| RY550                           | 24011332  | CHIP, METAL FILM, 1/20W 3.3K OHM J                        |
| RY551                           | 24011182  | CHIP, METAL FILM, 1/20W 1.8K OHM J                        |
| RY552                           | 24011152  | CHIP, METAL FILM, 1/20W 1.5K OHM J                        |
| RY560                           | 24011332  | CHIP, METAL FILM, 1/20W 3.3K OHM J                        |
| RY561                           | 24011471  | CHIP, METAL FILM, 1/20W 470 OHM J                         |
| RY562                           | 24011101  | CHIP, METAL FILM, 1/20W 100 OHM J                         |
| RY573                           | 24011472  | CHIP, METAL FILM, 1/20W 4.7K OHM J                        |
| RY575                           | 24011103  | CHIP, METAL FILM, 1/20W 10K OHM J                         |
| RY576                           | 24011123  | CHIP, METAL FILM, 1/20W 12K OHM J                         |
| RY585                           | 24011103  | CHIP, METAL FILM, 1/20W 10K OHM J                         |
| RY590                           | 24011103  | CHIP, METAL FILM, 1/20W 10K OHM J                         |
| RY591                           | 24011101  | CHIP, METAL FILM, 1/20W 100 OHM J                         |
| RY592                           | 24011101  | CHIP, METAL FILM, 1/20W 100 OHM J                         |
| <b>COILS &amp; TRANSFORMERS</b> |           |                                                           |
| L101                            | 23289845  | COIL, PEAKING, TRF4680AT                                  |
| L103                            | 23289844  | COIL, PEAKING, TRF4470AT                                  |
| L111                            | 23289845  | COIL, PEAKING, TRF4680AT                                  |
| L113                            | 23289842  | COIL, PEAKING, TRF4220AT                                  |
| L115                            | 23103852  | COIL, FILTER, TEM2028AH                                   |
| L121                            | 23238562  | COIL, PEAKING, TRF4109AJ                                  |
| L122                            | 23238562  | COIL, PEAKING, TRF4109AJ                                  |
| L201                            | 23103152  | FILTER, CHIP BEAD 1.5A 600OHM<br>BLM31PG601SN1, TEM2133AM |
| L202                            | 23103152  | FILTER, CHIP BEAD 1.5A 600OHM<br>BLM31PG601SN1, TEM2133AM |
| L203                            | 23103152  | FILTER, CHIP BEAD 1.5A 600OHM<br>BLM31PG601SN1, TEM2133AM |
| L204                            | 23103152  | FILTER, CHIP BEAD 1.5A 600OHM<br>BLM31PG601SN1, TEM2133AM |

| Location No. | Parts No. | Description                                               |
|--------------|-----------|-----------------------------------------------------------|
| L205         | 23103152  | FILTER, CHIP BEAD 1.5A 600OHM<br>BLM31PG601SN1, TEM2133AM |
| L206         | 23103152  | FILTER, CHIP BEAD 1.5A 600OHM<br>BLM31PG601SN1, TEM2133AM |
| L207         | 23103152  | FILTER, CHIP BEAD 1.5A 600OHM<br>BLM31PG601SN1, TEM2133AM |
| L208         | 23103152  | FILTER, CHIP BEAD 1.5A 600OHM<br>BLM31PG601SN1, TEM2133AM |
| L209         | 23103152  | FILTER, CHIP BEAD 1.5A 600OHM<br>BLM31PG601SN1, TEM2133AM |
| L210         | 23103152  | FILTER, CHIP BEAD 1.5A 600OHM<br>BLM31PG601SN1, TEM2133AM |
| L211         | 23246191  | COIL, CHIP-INDUCTOR-R47MMHJ,<br>COLTRF4R47CG              |
| L212         | 23246191  | COIL, CHIP-INDUCTOR-R47MMHJ,<br>COLTRF4R47CG              |
| L213         | 23246190  | COIL, CHIP-INDUCTOR-R39MMHJ,<br>COLTRF4R39CG              |
| L214         | 23246191  | COIL, CHIP-INDUCTOR-R47MMHJ,<br>COLTRF4R47CG              |
| L215         | 23246191  | COIL, CHIP-INDUCTOR-R47MMHJ,<br>COLTRF4R47CG              |
| L216         | 23246190  | COIL, CHIP-INDUCTOR-R39MMHJ,<br>COLTRF4R39CG              |
| L217         | 23246191  | COIL, CHIP-INDUCTOR-R47MMHJ,<br>COLTRF4R47CG              |
| L218         | 23246191  | COIL, CHIP-INDUCTOR-R47MMHJ,<br>COLTRF4R47CG              |
| L219         | 23246190  | COIL, CHIP-INDUCTOR-R39MMHJ,<br>COLTRF4R39CG              |
| L220         | 23246191  | COIL, CHIP-INDUCTOR-R47MMHJ,<br>COLTRF4R47CG              |
| L221         | 23246191  | COIL, CHIP-INDUCTOR-R47MMHJ,<br>COLTRF4R47CG              |
| L222         | 23246191  | COIL, CHIP-INDUCTOR-R47MMHJ,<br>COLTRF4R47CG              |
| L302         | 23248073  | COIL, CHOKE, TLN3299D                                     |
| L303         | 23248073  | COIL, CHOKE, TLN3299D                                     |
| L304         | 23103145  | FERRITE CHOKE, TEM2011AA                                  |
| L305         | 23103248  | FERRITE CHOKE, TEM2014AA                                  |
| L310         | 23289846  | COIL, PEAKING, TRF4101AT                                  |
| L401         | 23289560  | COIL, PEAKING, TRF4560AF                                  |
| L402         | 23248345  | COIL, CHOKE EI24 120MMH, TLN3534AH                        |
| L403         | 23103145  | FERRITE CHOKE, TEM2011AA                                  |
| L406         | 23248191  | COIL, CHOKE, TLN351AD                                     |
| L407         | 23103248  | FERRITE CHOKE, TEM2014AA                                  |
| L408         | 23103248  | FERRITE CHOKE, TEM2014AA                                  |
| L441         | 23233056  | COIL, LINEARITY, TLN2222AG                                |
| L462         | 23231374  | DEFLECTION YOKE, TDY707QZ                                 |
| L463         | 23231374  | DEFLECTION YOKE, TDY707QZ                                 |
| L464         | 23231374  | DEFLECTION YOKE, TDY707QZ                                 |
| L472         | 23102499  | MAGNET, CPM29.1VM, MAG-1119                               |
| L473         | 23102499  | MAGNET, CPM29.1VM, MAG-1119                               |
| L474         | 23102499  | MAGNET, CPM29.1VM, MAG-1119                               |
| L501         | 23289844  | COIL, PEAKING, TRF4470AT                                  |
| L503         | 23280022  | COIL, PEAKING, TRF4101AZ                                  |
| L701         | 23237987  | COIL, PEAKING, TRF4100AC                                  |
| L702         | 23261974  | COIL, FERRITE BEAD, HC5-035                               |
| L704         | 23103145  | FERRITE CHOKE, TEM2011AA                                  |
| L705         | 23103145  | FERRITE CHOKE, TEM2011AA                                  |
| L762         | 23103145  | FERRITE CHOKE, TEM2011AA                                  |
| L764         | 23103145  | FERRITE CHOKE, TEM2011AA                                  |
| L765         | 23103145  | FERRITE CHOKE, TEM2011AA                                  |
| L766         | 23261974  | COIL, FERRITE BEAD, HC5-035                               |
| L769         | 23237987  | COIL, PEAKING, TRF4100AC                                  |

| Location No. | Parts No. | Description                                               |
|--------------|-----------|-----------------------------------------------------------|
| L780         | 23237987  | COIL, PEAKING, TRF4100AC                                  |
| L781         | 23103145  | FERRITE CHOKE, TEM2011AA                                  |
| L782         | 23103145  | FERRITE CHOKE, TEM2011AA                                  |
| L783         | 23261974  | COIL, FERRITE BEAD, HC5-035                               |
| L801         | 23103152  | FILTER, CHIP BEAD 1.5A 600OHM<br>BLM31PG601SN1, TEM2133AM |
| L802         | 23103152  | FILTER, CHIP BEAD 1.5A 600OHM<br>BLM31PG601SN1, TEM2133AM |
| L805         | 23248213  | COIL, CHOKE, TLN3481AH                                    |
| L806         | 23248213  | COIL, CHOKE, TLN3481AH                                    |
| L830         | 23280019  | COIL, PEAKING, TRF4330AZ                                  |
| L831         | 23103941  | COIL, CHOKE, TEM2011                                      |
| L832         | 23248257  | COIL, CHOKE, TLN3503AH                                    |
| L833         | 23248247  | COIL, CHOKE, TLN3499AH                                    |
| L850         | 23103145  | FERRITE CHOKE, TEM2011AA                                  |
| L851         | 23103145  | FERRITE CHOKE, TEM2011AA                                  |
| L852         | 23103145  | FERRITE CHOKE, TEM2011AA                                  |
| L861         | 23103145  | FERRITE CHOKE, TEM2011AA                                  |
| L862         | 23103145  | FERRITE CHOKE, TEM2011AA                                  |
| L864         | 23103145  | FERRITE CHOKE, TEM2011AA                                  |
| L880         | 23103145  | FERRITE CHOKE, TEM2011AA                                  |
| L881         | 23103145  | FERRITE CHOKE, TEM2011AA                                  |
| L882         | 23103145  | FERRITE CHOKE, TEM2011AA                                  |
| L883         | 23103145  | FERRITE CHOKE, TEM2011AA                                  |
| L885         | 23248073  | COIL, CHOKE, TLN3299D                                     |
| L888         | 23248247  | COIL, CHOKE, TLN3499AH                                    |
| L889         | 23248247  | COIL, CHOKE, TLN3499AH                                    |
| L891         | 23103145  | FERRITE CHOKE, TEM2011AA                                  |
| L892         | 23103145  | FERRITE CHOKE, TEM2011AA                                  |
| L893         | 23248247  | COIL, CHOKE, TLN3499AH                                    |
| L894         | 23248247  | COIL, CHOKE, TLN3499AH                                    |
| L895         | 23103145  | FERRITE CHOKE, TEM2011AA                                  |
| L896         | 23103145  | FERRITE CHOKE, TEM2011AA                                  |
| L902         | 23289159  | COIL, PEAKING, TRF41R5AF                                  |
| L904         | 23289120  | COIL, PEAKING, TRF4120AF                                  |
| L905         | 23289689  | COIL, PEAKING, TRF46R8AF                                  |
| L907         | 23289229  | COIL, PEAKING, TRF4229AF                                  |
| L911         | 23289100  | COIL, PEAKING, TRF4100AF                                  |
| L913         | 23289159  | COIL, PEAKING, TRF41R5AF                                  |
| L915         | 23289689  | COIL, PEAKING, TRF46R8AF                                  |
| L916         | 23289120  | COIL, PEAKING, TRF4120AF                                  |
| L917         | 23289229  | COIL, PEAKING, TRF4229AF                                  |
| L923         | 23289159  | COIL, PEAKING, TRF41R5AF                                  |
| L924         | 23289120  | COIL, PEAKING, TRF4120AF                                  |
| L925         | 23289689  | COIL, PEAKING, TRF46R8AF                                  |
| L927         | 23289229  | COIL, PEAKING, TRF4229AF                                  |
| L961         | 23289100  | COIL, PEAKING, TRF4100AF                                  |
| L4401        | 23289220  | COIL, PEAKING, TRF4220AF                                  |
| L4702        | 23103827  | INDUCTOR, BEAD, TEM2120M                                  |
| L7708        | 23103145  | FERRITE CHOKE, TEM2011AA                                  |
| L7709        | 23103145  | FERRITE CHOKE, TEM2011AA                                  |
| L7710        | 23248320  | COIL, CHOKE 15X23H 100MMH 2.5A,<br>TLN3441AH              |
| L7711        | 23248320  | COIL, CHOKE 15X23H 100MMH 2.5A,<br>TLN3441AH              |
| L7712        | 23248031  | COIL, CHOKE, TLN3274D                                     |
| L7713        | 23248031  | COIL, CHOKE, TLN3274D                                     |
| LA37         | 23289836  | COIL, PEAKING, TRF42R2AT                                  |
| LA38         | 23289836  | COIL, PEAKING, TRF42R2AT                                  |
| LA39         | 23289836  | COIL, PEAKING, TRF42R2AT                                  |
| LB51         | 23237987  | COIL, PEAKING, TRF4100AC                                  |
| LC01         | 23103152  | FILTER, CHIP BEAD 1.5A 600OHM<br>BLM31PG601SN1, TEM2133AM |
| LE01         | 23103145  | FERRITE CHOKE, TEM2011AA                                  |
| LE02         | 23103775  | COIL, FERRITE CHOKE, TEM2014                              |

| Location No. | Parts No. | Description                                               |
|--------------|-----------|-----------------------------------------------------------|
| LE10         | 23103145  | FERRITE CHOKE, TEM2011AA                                  |
| LE30         | 23280016  | COIL, PEAKING, TRF4100AZ                                  |
| LE32         | 23248358  | COIL, CHOKE EI22 100MMHK, TLN3540AH                       |
| LE33         | 23248213  | COIL, CHOKE, TLN3481AH                                    |
| LE34         | 23248213  | COIL, CHOKE, TLN3481AH                                    |
| LE35         | 23280016  | COIL, PEAKING, TRF4100AZ                                  |
| LE40         | 23280016  | COIL, PEAKING, TRF4100AZ                                  |
| LE50         | 23280019  | COIL, PEAKING, TRF4330AZ                                  |
| LE52         | 23248358  | COIL, CHOKE EI22 100MMHK, TLN3540AH                       |
| LE53         | 23248213  | COIL, CHOKE, TLN3481AH                                    |
| LE54         | 23248213  | COIL, CHOKE, TLN3481AH                                    |
| LE71         | 23103145  | FERRITE CHOKE, TEM2011AA                                  |
| LE72         | 23248247  | COIL, CHOKE, TLN3499AH                                    |
| LE81         | 23103145  | FERRITE CHOKE, TEM2011AA                                  |
| LE82         | 23280018  | COIL, PEAKING, TRF4220AZ                                  |
| LE91         | 23103145  | FERRITE CHOKE, TEM2011AA                                  |
| LE92         | 23280018  | COIL, PEAKING, TRF4220AZ                                  |
| LG1          | 23103152  | FILTER, CHIP BEAD 1.5A 600OHM<br>BLM31PG601SN1, TEM2133AM |
| LG2          | 23103152  | FILTER, CHIP BEAD 1.5A 600OHM<br>BLM31PG601SN1, TEM2133AM |
| LG3          | 23103152  | FILTER, CHIP BEAD 1.5A 600OHM<br>BLM31PG601SN1, TEM2133AM |
| LG4          | 23103152  | FILTER, CHIP BEAD 1.5A 600OHM<br>BLM31PG601SN1, TEM2133AM |
| LG5          | 23103152  | FILTER, CHIP BEAD 1.5A 600OHM<br>BLM31PG601SN1, TEM2133AM |
| LG6          | 23103152  | FILTER, CHIP BEAD 1.5A 600OHM<br>BLM31PG601SN1, TEM2133AM |
| LG7          | 23103152  | FILTER, CHIP BEAD 1.5A 600OHM<br>BLM31PG601SN1, TEM2133AM |
| LG8          | 23103152  | FILTER, CHIP BEAD 1.5A 600OHM<br>BLM31PG601SN1, TEM2133AM |
| LG11         | 23103152  | FILTER, CHIP BEAD 1.5A 600OHM<br>BLM31PG601SN1, TEM2133AM |
| LG12         | 23103152  | FILTER, CHIP BEAD 1.5A 600OHM<br>BLM31PG601SN1, TEM2133AM |
| LG13         | 23103152  | FILTER, CHIP BEAD 1.5A 600OHM<br>BLM31PG601SN1, TEM2133AM |
| LG14         | 23103152  | FILTER, CHIP BEAD 1.5A 600OHM<br>BLM31PG601SN1, TEM2133AM |
| LG15         | 23103823  | COIL, FILTER, TEM2027D                                    |
| LG16         | 23103823  | COIL, FILTER, TEM2027D                                    |
| LG17         | 23103823  | COIL, FILTER, TEM2027D                                    |
| LG18         | 23103823  | COIL, FILTER, TEM2027D                                    |
| LG19         | 23103823  | COIL, FILTER, TEM2027D                                    |
| LG20         | 23103152  | FILTER, CHIP BEAD 1.5A 600OHM<br>BLM31PG601SN1, TEM2133AM |
| LG211        | 23289100  | COIL, PEAKING, TRF4100AF                                  |
| LG212        | 23289100  | COIL, PEAKING, TRF4100AF                                  |
| LI01         | 23246051  | COIL, CHIP-INDUCTOR-0.22MMH K,<br>COLTRF4R22CE            |
| LI02         | 23246196  | COIL, CHIP INDUCTOR, TRF41R2CG                            |
| LI51         | 23289470  | COIL, PEAKING, TRF4470AF                                  |
| LI52         | 23289120  | COIL, PEAKING, TRF4120AF                                  |
| LI53         | 23289180  | COIL, PEAKING, TRF4180AF                                  |
| LI54         | 23232050  | COIL, VARIABLE, TRF3554D                                  |
| LI55         | 23289129  | COIL, PEAKING 1.0MMH J 0405, TRF41R2AF                    |
| LI56         | 23289180  | COIL, PEAKING, TRF4180AF                                  |
| LI57         | 23289228  | COIL, PEAKING, TRF4R22AF                                  |
| LV01         | 23103159  | FILTER, EMI, TEM2028AA, 7.5X6.4X8<br>60MMH 0.5A           |
| LV02         | 23103159  | FILTER, EMI, TEM2028AA, 7.5X6.4X8<br>60MMH 0.5A           |

| Location No.          | Parts No. | Description                                  |
|-----------------------|-----------|----------------------------------------------|
| LV03                  | 23103159  | FILTER, EMI, TEM2028AA, 7.5X6.4X8 60MMH 0.5A |
| LV09                  | 23289840  | COIL, PEAKING, TRF4100AT                     |
| LV13                  | 23289840  | COIL, PEAKING, TRF4100AT                     |
| LV20                  | 23238705  | COIL, PEAKING, TRF4560AJ                     |
| LV42                  | 23289840  | COIL, PEAKING, TRF4100AT                     |
| LV72                  | 23103159  | FILTER, EMI, TEM2028AA, 7.5X6.4X8 60MMH 0.5A |
| LV251                 | 23103852  | COIL, FILTER, TEM2028AH                      |
| LV252                 | 23103852  | COIL, FILTER, TEM2028AH                      |
| LV253                 | 23103852  | COIL, FILTER, TEM2028AH                      |
| LV270                 | 23289840  | COIL, PEAKING, TRF4100AT                     |
| LV271                 | 23103146  | EMI FILTER, TEM2030AA                        |
| LY012                 | 23246398  | COIL, CHIP INDUCTOR 10MMH K, COLTRF4100CV    |
| LY100                 | 23246405  | COIL, CHIP INDUCTOR 33MMH J, COLTRF4330CW    |
| LY101                 | 23103827  | INDUCTOR, BEAD, TEM2120M                     |
| LY102                 | 23103827  | INDUCTOR, BEAD, TEM2120M                     |
| LY103                 | 23103230  | INDUCTOR, BEAD, TEM2134AD                    |
| LY104                 | 23246404  | COIL, CHIP INDUCTOR 15MMH J, COLTRF4150CW    |
| LY105                 | 23246222  | COIL, CHIP INDUCTOR, TRF4270CG               |
| LY112                 | 23103230  | INDUCTOR, BEAD, TEM2134AD                    |
| LY501                 | 23246398  | COIL, CHIP INDUCTOR 10MMH K, COLTRF4100CV    |
| T400                  | 23224386  | TRANSFORMER, FOCUS, TLN2220AH                |
| T401                  | 23224371  | TRANSFORMER, HORIZ DRIVE, TLN1080AH          |
| T461A                 | 23192972  | ANODE CAP ASSY, TCC5609AT                    |
| T801                  | 23211763  | COIL, LINE FILTER 35X32H, TRF3241AQ          |
| T802                  | 23211765  | COIL, LF LH35V, TRF3239AH                    |
| T862                  | 23217598  | TRANSFORMER, CONVERTER, TPW3516AS            |
| TE01                  | 23217586  | TRANSFORMER, CONVERTER, TPW3512AS            |
| <b>SEMICONDUCTORS</b> |           |                                              |
| Q172                  | 23314993  | TRANSISTOR, 2SC4081 Q                        |
| Q201                  | 23009234  | IC, TI TFP501, TFP501                        |
| Q201                  | 23314993  | TRANSISTOR, 2SC4081 Q                        |
| Q202                  | 23009233  | IC, TI THS8200, THS8200                      |
| Q203                  | 23009394  | IC, TMP87P809M                               |
| Q204                  | 23009371  | IC, IC, EPM3032A, EPM3032ATC4410             |
| Q205                  | 23205151  | TRANSISTOR, FET, BSN20                       |
| Q206                  | 23205151  | TRANSISTOR, FET, BSN20                       |
| Q207                  | 23314163  | TRANSISTOR, 2SA1162-Y                        |
| Q208                  | 23314163  | TRANSISTOR, 2SA1162-Y                        |
| Q209                  | 23314163  | TRANSISTOR, 2SA1162-Y                        |
| Q210                  | 23314204  | TRANSISTOR, 2SC2412K,Q                       |
| Q210                  | 23205057  | TRANSISTOR, KTC3875Y                         |
| Q211                  | 23205151  | TRANSISTOR, FET, BSN20                       |
| Q211                  | 23205057  | TRANSISTOR, KTC3875Y                         |
| Q212                  | 70114402  | TRANSISTOR, 2SC3437-Y                        |
| Q213                  | 23314204  | TRANSISTOR, 2SC2412K,Q                       |
| Q241                  | 23114756  | TRANSISTOR, 2SC2482                          |
| Q301                  | 23319787  | IC, LA7833S                                  |
| Q301B                 | 70391356  | SCREW, BITTB3X10 SZN                         |
| Q302                  | 23000711  | IC, TA1317AN                                 |
| Q305                  | 23314994  | TRANSISTOR, 2SA1576A106                      |
| Q306                  | 70119059  | IC, OP AMP, TA75902P(J)                      |
| Q370                  | 23314993  | TRANSISTOR, 2SC4081 Q                        |
| Q371                  | 23314994  | TRANSISTOR, 2SA1576A106                      |
| Q372                  | 23314993  | TRANSISTOR, 2SC4081 Q                        |
| Q400                  | 23205079  | TRANSISTOR, 2SC4686A                         |
| Q402                  | 23205166  | TRANSISTOR, FET, 2SK2962                     |
| Q404                  | 23205149  | TRANSISTOR, 2SC5859(FA)                      |
| Q404B                 | 72471082  | SCREW, 3X10MM                                |

| Location No. | Parts No. | Description                                   |
|--------------|-----------|-----------------------------------------------|
| Q404D        | 23850638  | INSULATOR, TRANSISTOR, AC263(NO SERVICE PART) |
| Q405         | 23314962  | TRANSISTOR, KTA1266 Y                         |
| Q406         | 23314965  | TRANSISTOR, KTC3198 Y                         |
| Q408         | 23314962  | TRANSISTOR, KTA1266 Y                         |
| Q409         | 23314965  | TRANSISTOR, KTC3198 Y                         |
| Q410         | 23314993  | TRANSISTOR, 2SC4081 Q                         |
| Q411         | 23314993  | TRANSISTOR, 2SC4081 Q                         |
| Q420         | 23114756  | TRANSISTOR, 2SC2482                           |
| Q425         | 23205031  | TRANSISTOR, FET, 2SK2920                      |
| Q428         | 23314965  | TRANSISTOR, KTC3198 Y                         |
| Q470         | 23314359  | TRANSISTOR, 2SA1321(FA, C)                    |
| Q471         | 23314965  | TRANSISTOR, KTC3198 Y                         |
| Q472         | 23314965  | TRANSISTOR, KTC3198 Y                         |
| Q473         | 23314962  | TRANSISTOR, KTA1266 Y                         |
| Q510         | 23009369  | IC, TA1360AFG                                 |
| Q520         | 23205054  | TRANSISTOR, KTA1504Y                          |
| Q521         | 23205054  | TRANSISTOR, KTA1504Y                          |
| Q522         | 23205054  | TRANSISTOR, KTA1504Y                          |
| Q523         | 23314993  | TRANSISTOR, 2SC4081 Q                         |
| Q524         | 23114497  | TRANSISTOR, RN1406                            |
| Q525         | 23114497  | TRANSISTOR, RN1406                            |
| Q526         | 23114497  | TRANSISTOR, RN1406                            |
| Q527         | 23205054  | TRANSISTOR, KTA1504Y                          |
| Q528         | 23205054  | TRANSISTOR, KTA1504Y                          |
| Q529         | 23205054  | TRANSISTOR, KTA1504Y                          |
| Q530         | 23314994  | TRANSISTOR, 2SA1576A106                       |
| Q601         | 23009485  | IC, TA8258H(GR)                               |
| Q601B        | 70391356  | SCREW, BITTB3X10 SZN                          |
| Q612         | 23314994  | TRANSISTOR, 2SA1576A106                       |
| Q661         | 70114396  | TRANSISTOR, 2SC3326B                          |
| Q662         | 70114396  | TRANSISTOR, 2SC3326B                          |
| Q663         | 23906596  | IC, BA4558                                    |
| Q664         | 23114493  | TRANSISTOR, RN2404                            |
| Q681         | 70114396  | TRANSISTOR, 2SC3326B                          |
| Q682         | 70114396  | TRANSISTOR, 2SC3326B                          |
| Q683         | 23314993  | TRANSISTOR, 2SC4081 Q                         |
| Q706         | 23114528  | TRANSISTOR, 2SC1740S                          |
| Q707         | 23114437  | TRANSISTOR, 2SC752GTM-Y                       |
| Q709         | 23114528  | TRANSISTOR, 2SC1740S                          |
| Q710         | 23205123  | TRANSISTOR, 2SA933ASQ                         |
| Q711         | 23314909  | TRANSISTOR, 2SA1837                           |
| Q711B        | 23712306  | SCREW, PP3X.5X6SZN                            |
| Q712         | 23314912  | TRANSISTOR, 2SC4793                           |
| Q712B        | 23712306  | SCREW, PP3X.5X6SZN                            |
| Q719         | 23114528  | TRANSISTOR, 2SC1740S                          |
| Q720         | 23114528  | TRANSISTOR, 2SC1740S                          |
| Q721         | 23114735  | TRANSISTOR, 2SA102-Y(C)                       |
| Q722         | 23114733  | TRANSISTOR, 2SC2655-Y                         |
| Q751         | 23135040  | IC, CONVERGENCE OUT, STK394-250               |
| Q752         | 23135040  | IC, CONVERGENCE OUT, STK394-250               |
| Q760         | 23205123  | TRANSISTOR, 2SA933ASQ                         |
| Q761         | 23314909  | TRANSISTOR, 2SA1837                           |
| Q761B        | 23712306  | SCREW, PP3X.5X6SZN                            |
| Q769         | 23114528  | TRANSISTOR, 2SC1740S                          |
| Q771         | 23314994  | TRANSISTOR, 2SA1576A106                       |
| Q771         | 23314912  | TRANSISTOR, 2SC4793                           |
| Q771B        | 23712306  | SCREW, PP3X.5X6SZN                            |
| Q772         | 23319666  | IC, TC74HC123AP(NEW)                          |
| Q776         | 23314965  | TRANSISTOR, KTC3198 Y                         |
| Q777         | 23314962  | TRANSISTOR, KTA1266 Y                         |
| Q778         | 23314965  | TRANSISTOR, KTC3198 Y                         |
| Q779         | 23114528  | TRANSISTOR, 2SC1740S                          |
| Q779         | 23314965  | TRANSISTOR, KTC3198 Y                         |
| Q780         | 23314962  | TRANSISTOR, KTA1266 Y                         |

| Location No. | Parts No. | Description                                |
|--------------|-----------|--------------------------------------------|
| Q781         | 23114528  | TRANSISTOR, 2SC1740S                       |
| Q781         | 23314965  | TRANSISTOR, KTC3198 Y                      |
| Q782         | 23319894  | IC, NJM79M05FA                             |
| Q782         | 23205123  | TRANSISTOR, 2SA933ASQ                      |
| Q783         | 23114528  | TRANSISTOR, 2SC1740S                       |
| Q783         | 23205037  | TRANSISTOR, 2SJ512                         |
| Q783B        | 70391356  | SCREW, BITTB3X10 SZN                       |
| Q784         | 23904268  | IC, PQ05RR1                                |
| Q784         | 23314909  | TRANSISTOR, 2SA1837                        |
| Q784B        | 23712306  | SCREW, PP3X.5X6SZN                         |
| Q784B        | 70391356  | SCREW, BITTB3X10 SZN                       |
| Q785         | 23314912  | TRANSISTOR, 2SC4793                        |
| Q785B        | 23712306  | SCREW, PP3X.5X6SZN                         |
| Q788         | 23314993  | TRANSISTOR, 2SC4081 Q                      |
| Q792         | 23319666  | IC, TC74HC123AP(NEW)                       |
| Q793         | 23205031  | TRANSISTOR, FET, 2SK2920                   |
| Q796         | 23314993  | TRANSISTOR, 2SC4081 Q                      |
| Q798         | 23314993  | TRANSISTOR, 2SC4081 Q                      |
| Q801         | 23135028  | IC, STR-Z4479                              |
| Q801         | 23009236  | IC, TI TPS76918, TPS76918                  |
| Q830         | 23000804  | IC, SI-3090J(LF1101)                       |
| Q830B        | 70391356  | SCREW, BITTB3X10 SZN                       |
| Q831         | 23319941  | IC, SI-3050C                               |
| Q831B        | 70391356  | SCREW, BITTB3X10 SZN                       |
| Q832         | 23000806  | IC, SI-8033SS                              |
| Q832B        | 70391355  | SCREW, BIND HEAD TAP-TITE B, BITTB 3X8 SZN |
| Q833         | 23905976  | IC, PQ05RD11                               |
| Q833B        | 70391356  | SCREW, BITTB3X10 SZN                       |
| Q841         | 23009270  | IC, PHOTO COUPLER, PS2581L1(D)             |
| Q843         | 23314965  | TRANSISTOR, KTC3198 Y                      |
| Q844         | 23314965  | TRANSISTOR, KTC3198 Y                      |
| Q862         | 23009270  | IC, PHOTO COUPLER, PS2581L1(D)             |
| Q881         | 23319693  | IC, SE116N, LF4                            |
| Q894         | 23314965  | TRANSISTOR, KTC3198 Y                      |
| Q901         | 23205159  | TRANSISTOR, 2SC3942                        |
| Q902         | 23205165  | TRANSISTOR, 2SC3950E                       |
| Q904         | 23205158  | TRANSISTOR, 2SC3790E                       |
| Q905         | 23205156  | TRANSISTOR, 2SA1480E                       |
| Q911         | 23205159  | TRANSISTOR, 2SC3942                        |
| Q912         | 23205165  | TRANSISTOR, 2SC3950E                       |
| Q913         | 23314962  | TRANSISTOR, KTA1266 Y                      |
| Q914         | 23205158  | TRANSISTOR, 2SC3790E                       |
| Q915         | 23205156  | TRANSISTOR, 2SA1480E                       |
| Q921         | 23205159  | TRANSISTOR, 2SC3942                        |
| Q922         | 23205165  | TRANSISTOR, 2SC3950E                       |
| Q924         | 23205158  | TRANSISTOR, 2SC3790E                       |
| Q925         | 23205156  | TRANSISTOR, 2SA1480E                       |
| Q961         | 23314965  | TRANSISTOR, KTC3198 Y                      |
| Q962         | 23314962  | TRANSISTOR, KTA1266 Y                      |
| Q973         | 23314962  | TRANSISTOR, KTA1266 Y                      |
| Q2104        | 23205123  | TRANSISTOR, 2SA933ASQ                      |
| Q2105        | 23205123  | TRANSISTOR, 2SA933ASQ                      |
| Q2106        | 23205123  | TRANSISTOR, 2SA933ASQ                      |
| Q2107        | 23205123  | TRANSISTOR, 2SA933ASQ                      |
| Q2108        | 23205123  | TRANSISTOR, 2SA933ASQ                      |
| Q2109        | 23205123  | TRANSISTOR, 2SA933ASQ                      |
| Q4430        | 23314164  | TRANSISTOR, 2SC2236-Y(C))                  |
| Q4701        | 23906335  | IC, TA1270AF(J)                            |
| Q4702        | 23314289  | TRANSISTOR, 2SA1586-Y                      |
| Q4703        | 23314289  | TRANSISTOR, 2SA1586-Y                      |
| QA01         | 23009533  | IC, MCU 1CHIP 16BIT 4M 64P, MN102H85KFM    |
| QA02         | 23009330  | IC, AT24C64-10PI-2.7                       |
| QA70         | 23319935  | IC, MM1096BS                               |
| QA71         | 23314993  | TRANSISTOR, 2SC4081 Q                      |

| Location No. | Parts No. | Description                                             |
|--------------|-----------|---------------------------------------------------------|
| QA72         | 23314993  | TRANSISTOR, 2SC4081 Q                                   |
| QA80         | 23906295  | IC, UPC29M33HB                                          |
| QA81         | 70200563  | IC, RESET VS=2.9V, PST9129                              |
| QB01         | 23114528  | TRANSISTOR, 2SC1740S                                    |
| QB03         | 23114498  | TRANSISTOR, RN1405                                      |
| QB05         | 23314993  | TRANSISTOR, 2SC4081 Q                                   |
| QB14         | 23314993  | TRANSISTOR, 2SC4081 Q                                   |
| QB15         | 23314993  | TRANSISTOR, 2SC4081 Q                                   |
| QB44         | 23205112  | TRANSISTOR, 2SA1980UF-Y(                                |
| QB45         | 23205116  | TRANSISTOR, 2SC5343UF-Y(B                               |
| QB46         | 23205112  | TRANSISTOR, 2SA1980UF-Y(                                |
| QB47         | 23205116  | TRANSISTOR, 2SC5343UF-Y(B                               |
| QB51         | 23319808  | IC, M5218AP                                             |
| QB51         | 23205054  | TRANSISTOR, KTA1504Y                                    |
| QB52         | 23314965  | TRANSISTOR, KTC3198 Y                                   |
| QB53         | 23314962  | TRANSISTOR, KTA1266 Y                                   |
| QB55         | 23314993  | TRANSISTOR, 2SC4081 Q                                   |
| QB61         | 70114402  | TRANSISTOR, 2SC3437-Y                                   |
| QB81         | 70114396  | TRANSISTOR, 2SC3326B                                    |
| QB82         | 70114396  | TRANSISTOR, 2SC3326B                                    |
| QB83         | 23314994  | TRANSISTOR, 2SA1576A106                                 |
| QB84         | 23314993  | TRANSISTOR, 2SC4081 Q                                   |
| QB85         | 23314994  | TRANSISTOR, 2SA1576A106                                 |
| QB86         | 23314994  | TRANSISTOR, 2SA1576A106                                 |
| QB87         | 23314994  | TRANSISTOR, 2SA1576A106                                 |
| QB88         | 23314994  | TRANSISTOR, 2SA1576A106                                 |
| QB501        | 23009558  | IC, BLASTER IC, S3C80F7                                 |
| QB502        | 23114422  | TRANSISTOR, 2SA562TM-Y                                  |
| QB504        | 23314993  | TRANSISTOR, 2SC4081 Q                                   |
| QB505        | 23314993  | TRANSISTOR, 2SC4081 Q                                   |
| QB506        | 23904123  | IC, TC4W53F                                             |
| QB507        | 23314993  | TRANSISTOR, 2SC4081 Q                                   |
| QB508        | 23114422  | TRANSISTOR, 2SA562TM-Y                                  |
| QC01         | 23009360  | IC, 4K BIT CMOS EEPROM 24C04N-10SI-1.8TEL, AT24C04N10SI |
| QC02         | 23205151  | TRANSISTOR, FET, BSN20                                  |
| QC03         | 23205151  | TRANSISTOR, FET, BSN20                                  |
| QC04         | 23009360  | IC, 4K BIT CMOS EEPROM 24C04N-10SI-1.8TEL, AT24C04N10SI |
| QC05         | 23314204  | TRANSISTOR, 2SC2412K,Q                                  |
| QE01         | 23135036  | IC, STRW6853                                            |
| QE02         | 23009270  | IC, PHOTO COUPLER, PS2581L1(D)                          |
| QE19         | 23314965  | TRANSISTOR, KTC3198 Y                                   |
| QE20         | 23000701  | IC, NJM431L                                             |
| QE30         | 23000806  | IC, SI-8033SS                                           |
| QE31         | 23000469  | IC, PQ5EV3                                              |
| QE40         | 23319202  | IC, MC7809CT                                            |
| QE40B        | 70391356  | SCREW, BITTB3X10 SZN                                    |
| QE41         | 23319941  | IC, SI-3050C                                            |
| QE43         | 23314839  | TRANSISTOR, 2SC2240-GR                                  |
| QE50         | 23009271  | IC, SWITCHING REG., NJM2367                             |
| QG1          | 23009523  | IC, F741503A                                            |
| QG2          | 23009524  | IC, AD55/136-0                                          |
| QG6          | 23009671  | IC, PIC12F629                                           |
| QG7          | 23009528  | IC, 1.8V REG BA18BC0FP-E2                               |
| QG8          | 23906770  | IC, BA033FP                                             |
| QG11         | 23009526  | IC, FLASH32MBIT DS42667, AM29LV320MB-120EI              |
| QG12         | 23009525  | IC, SDRAM 64MBIT IS42S16400, IS42S16400-7T-TR           |
| QG13         | 23009525  | IC, SDRAM 64MBIT IS42S16400, IS42S16400-7T-TR           |
| QG15         | 23314834  | TRANSISTOR, MMBT3906LT1                                 |
| QG16         | 23314833  | TRANSISTOR, MMBT3904LT1                                 |
| QG17         | 23009591  | IC, LVDS TRANSMITTER, THC63LVDM83R                      |

| Location No. | Parts No. | Description                               |
|--------------|-----------|-------------------------------------------|
| QG201        | 23000529  | IC, SW 2IN 1OUT 3CIRCUIT 0 CLP MM1231XD   |
| QG202        | 23009532  | IC, ANALOG SWITCH, BA7612N                |
| QH301        | 23358557  | OPT DEVICE, AM. PHOTODSENSOR, AM-30-24CA  |
| QH301        | 23358557  | OPT DEVICE, AM. PHOTODSENSOR, AM-30-24CA  |
| QH301        | 23358557  | OPT DEVICE, AM. PHOTODSENSOR, AM-30-24CA  |
| QH301        | 23358557  | OPT DEVICE, AM. PHOTODSENSOR, AM-30-24CA  |
| QI01         | 23114611  | TRANSISTOR, 2SC3357                       |
| QI02         | 23314994  | TRANSISTOR, 2SA1576A106                   |
| QI03         | 23314993  | TRANSISTOR, 2SC4081 Q                     |
| QI05         | 23009240  | IC, VIF/SIF SSOP24PIN, TA1274F(FA03A5,EL) |
| QR14         | 23314994  | TRANSISTOR, 2SA1576A106                   |
| QR15         | 23314994  | TRANSISTOR, 2SA1576A106                   |
| QR16         | 23314994  | TRANSISTOR, 2SA1576A106                   |
| QS03         | 23314993  | TRANSISTOR, 2SC4081 Q                     |
| QS04         | 23314993  | TRANSISTOR, 2SC4081 Q                     |
| QS05         | 23318977  | IC, MC14052BF                             |
| QS06         | 23318977  | IC, MC14052BF                             |
| QS07         | 70114396  | TRANSISTOR, 2SC3326B                      |
| QS08         | 70114396  | TRANSISTOR, 2SC3326B                      |
| QS09         | 23114493  | TRANSISTOR, RN2404                        |
| QS10         | 23904896  | IC, JLC1562BF                             |
| QS11         | 23114499  | TRANSISTOR, RN1404                        |
| QS12         | 23114499  | TRANSISTOR, RN1404                        |
| QS13         | 23114499  | TRANSISTOR, RN1404                        |
| QS14         | 23114499  | TRANSISTOR, RN1404                        |
| QS120        | 23906596  | IC, BA4558                                |
| QV01         | 23906887  | IC, CXA2069Q                              |
| QV04         | 23314993  | TRANSISTOR, 2SC4081 Q                     |
| QV06         | 23314994  | TRANSISTOR, 2SA1576A106                   |
| QV09         | 23314994  | TRANSISTOR, 2SA1576A106                   |
| QV12         | 23009418  | IC, 2IN-1OUTSW DRIVER, MM1505XNRE         |
| QV13         | 23314993  | TRANSISTOR, 2SC4081 Q                     |
| QV14         | 23314993  | TRANSISTOR, 2SC4081 Q                     |
| QV20         | 23114499  | TRANSISTOR, RN1404                        |
| QV70         | 23314993  | TRANSISTOR, 2SC4081 Q                     |
| QV71         | 23314993  | TRANSISTOR, 2SC4081 Q                     |
| QV72         | 23314994  | TRANSISTOR, 2SA1576A106                   |
| QV73         | 23314994  | TRANSISTOR, 2SA1576A106                   |
| QV254        | 23000360  | IC, MM1519XQ                              |
| QY100        | 23906515  | IC, TC90A45F                              |
| QY101        | 23314993  | TRANSISTOR, 2SC4081 Q                     |
| QY102        | 23314993  | TRANSISTOR, 2SC4081 Q                     |
| QY103        | 23314994  | TRANSISTOR, 2SA1576A106                   |
| QY501        | 23000812  | IC, TA1340F                               |
| QY502        | 23205014  | TRANSISTOR, 2SC4667-O                     |
| QY503        | 23314994  | TRANSISTOR, 2SA1576A106                   |
| QY504        | 23314994  | TRANSISTOR, 2SA1576A106                   |
| QY507        | 23314993  | TRANSISTOR, 2SC4081 Q                     |
| QY511        | 23314994  | TRANSISTOR, 2SA1576A106                   |
| QY512        | 23314994  | TRANSISTOR, 2SA1576A106                   |
| QY513        | 23314994  | TRANSISTOR, 2SA1576A106                   |
| QY514        | 23314994  | TRANSISTOR, 2SA1576A106                   |
| QY515        | 23314994  | TRANSISTOR, 2SA1576A106                   |
| QY516        | 23314994  | TRANSISTOR, 2SA1576A106                   |
| QY518        | 23314993  | TRANSISTOR, 2SC4081 Q                     |
| QY520        | 23314993  | TRANSISTOR, 2SC4081 Q                     |
| D201         | 23118041  | DIODE, MA111                              |
| D202         | 23118041  | DIODE, MA111                              |
| D203         | 23118041  | DIODE, MA111                              |
| D204         | 23118041  | DIODE, MA111                              |
| D205         | 23316573  | DIODE, ZENER, MA8062-L                    |

| Location No. | Parts No. | Description                              |
|--------------|-----------|------------------------------------------|
| D206         | 23316573  | DIODE, ZENER, MA8062-L                   |
| D230         | 23118041  | DIODE, MA111                             |
| D301         | 23316682  | DIODE, ZENER, MTZJ7.5C                   |
| D302         | 23357366  | DIODE, FR105-B5                          |
| D304         | 23316794  | DIODE, SC570A                            |
| D305         | 23118822  | DIODE, ERB12-02                          |
| D306         | 23118822  | DIODE, ERB12-02                          |
| D327         | 23316715  | DIODE, ZENER, MTZJ11A                    |
| D336         | 23316672  | DIODE, ZENER, MTZJ5.6B                   |
| D337         | 23316672  | DIODE, ZENER, MTZJ5.6B                   |
| D365         | 23316682  | DIODE, ZENER, MTZJ7.5C                   |
| D370         | 23118859  | DIODE, 1SS133                            |
| D401         | 23118056  | DIODE, AG01                              |
| D402         | 23357366  | DIODE, FR105-B5                          |
| D404         | 23316254  | DIODE, ERC06-15                          |
| D406         | 23115910  | DIODE, S5295G                            |
| D411         | 23316731  | DIODE, ZENER, MTZJ18B                    |
| D412         | 23118707  | DIODE, RP-1H                             |
| D413         | 23118707  | DIODE, RP-1H                             |
| D414         | 23357366  | DIODE, FR105-B5                          |
| D415         | 23357366  | DIODE, FR105-B5                          |
| D418         | 23316755  | DIODE, ZENER, MTZJ33C                    |
| D419         | 23316231  | DIODE, 1SS355                            |
| D420         | 23118859  | DIODE, 1SS133                            |
| D421         | 23357366  | DIODE, FR105-B5                          |
| D425         | 23357366  | DIODE, FR105-B5                          |
| D426         | 23316731  | DIODE, ZENER, MTZJ18B                    |
| D450         | 23357366  | DIODE, FR105-B5                          |
| D461         | 23224366  | DIODE, FMQ-3GU                           |
| D461B        | 70391356  | SCREW, BITTB3X10 SZN                     |
| D470         | 23316719  | DIODE, ZENER, MTZJ12B                    |
| D490         | 23316675  | DIODE, ZENER, MTZJ6.2B                   |
| D491         | 23118859  | DIODE, 1SS133                            |
| D492         | 23316690  | DIODE, ZENER, MTZJ10B                    |
| D502         | 23118041  | DIODE, MA111                             |
| D505         | 23118094  | DIODE, EU2A                              |
| D520         | 23118641  | DIODE, ZENER, RD2.0ESA B2                |
| D522         | 23118041  | DIODE, MA111                             |
| D523         | 23118041  | DIODE, MA111                             |
| D531         | 23316584  | DIODE, ZENER CHIP VZ7.77-8.17V, MA8082-L |
| D532         | 23357365  | DIODE, 1N4004A-B5                        |
| D533         | 23316591  | DIODE, ZENER, MA8100-M                   |
| D534         | 23316792  | DIODE, SC215                             |
| D535         | 23316591  | DIODE, ZENER, MA8100-M                   |
| D536         | 23316231  | DIODE, 1SS355                            |
| D601         | 23118041  | DIODE, MA111                             |
| D602         | 23118041  | DIODE, MA111                             |
| D603         | 23118041  | DIODE, MA111                             |
| D604         | 23118041  | DIODE, MA111                             |
| D607         | 23316622  | DIODE, ZENER, MA8270-M                   |
| D608         | 23316622  | DIODE, ZENER, MA8270-M                   |
| D611         | 23118041  | DIODE, MA111                             |
| D612         | 23118041  | DIODE, MA111                             |
| D613         | 23118041  | DIODE, MA111                             |
| D614         | 23118041  | DIODE, MA111                             |
| D615         | 23118041  | DIODE, MA111                             |
| D616         | 23118041  | DIODE, MA111                             |
| D617         | 23118041  | DIODE, MA111                             |
| D704         | 23118859  | DIODE, 1SS133                            |
| D705         | 23118859  | DIODE, 1SS133                            |
| D715         | 23118859  | DIODE, 1SS133                            |
| D721         | 23118859  | DIODE, 1SS133                            |
| D721         | 23316722  | DIODE, ZENER, MTZJ13B                    |
| D722         | 23316722  | DIODE, ZENER, MTZJ13B                    |
| D761         | 23118859  | DIODE, 1SS133                            |

| Location No. | Parts No. | Description                              |
|--------------|-----------|------------------------------------------|
| D762         | 23118859  | DIODE, 1SS133                            |
| D763         | 23118859  | DIODE, 1SS133                            |
| D764         | 23118859  | DIODE, 1SS133                            |
| D781         | 23118859  | DIODE, 1SS133                            |
| D782         | 23118859  | DIODE, 1SS133                            |
| D783         | 23118859  | DIODE, 1SS133                            |
| D784         | 23118859  | DIODE, 1SS133                            |
| D801         | 23316784  | DIODE, RBV1506, LF-A                     |
| D830         | 23118213  | DIODE, RK44,                             |
| D831         | 23316663  | DIODE, ZENER, MTZJ4.3B                   |
| D832         | 23118859  | DIODE, 1SS133                            |
| D834         | 23316269  | DIODE, AK04                              |
| D835         | 23118096  | DIODE, RK34                              |
| D844         | 23316672  | DIODE, ZENER, MTZJ5.6B                   |
| D845         | 23118859  | DIODE, 1SS133                            |
| D848         | 23118859  | DIODE, 1SS133                            |
| D851         | 23357216  | DIODE, D4SBL20U                          |
| D852         | 23316714  | DIODE, RL2Z                              |
| D853         | 23316714  | DIODE, RL2Z                              |
| D862         | 23357366  | DIODE, FR105-B5                          |
| D864         | 23357366  | DIODE, FR105-B5                          |
| D873         | 23316747  | DIODE, ZENER, MTZJ27C                    |
| D875         | 23316688  | DIODE, ZENER, MTZJ9.1C                   |
| D876         | 23316759  | DIODE, ZENER, MTZJ36C                    |
| D878         | 23316686  | DIODE, ZENER, MTZJ9.1A                   |
| D879         | 23316747  | DIODE, ZENER, MTZJ27C                    |
| D880         | 23316661  | DIODE, ZENER, MTZJ3.9B                   |
| D881         | 23118859  | DIODE, 1SS133                            |
| D882         | 23357012  | DIODE, 1SS244                            |
| D883         | 23118859  | DIODE, 1SS133                            |
| D884         | 23357217  | DIODE, D4SBL40                           |
| D884B        | 70391334  | SCREW, BTB 3X8 SZN                       |
| D885         | 23357216  | DIODE, D4SBL20U                          |
| D891         | 23316184  | DIODE, FML-G12S                          |
| D891B        | 70391334  | SCREW, BTB 3X8 SZN                       |
| D892         | 23316184  | DIODE, FML-G12S                          |
| D892B        | 70391334  | SCREW, BTB 3X8 SZN                       |
| D893         | 23316782  | DIODE, ZENER, MTZJ6.2C                   |
| D894         | 23118859  | DIODE, 1SS133                            |
| D899         | 24019485  | VARIATOR, TNR10V431K                     |
| D901         | 23118859  | DIODE, 1SS133                            |
| D906         | 23357012  | DIODE, 1SS244                            |
| D907         | 23357012  | DIODE, 1SS244                            |
| D908         | 23357012  | DIODE, 1SS244                            |
| D909         | 23357012  | DIODE, 1SS244                            |
| D912         | 23118859  | DIODE, 1SS133                            |
| D913         | 23115337  | DIODE, 1S1834                            |
| D916         | 23357012  | DIODE, 1SS244                            |
| D917         | 23357012  | DIODE, 1SS244                            |
| D918         | 23357012  | DIODE, 1SS244                            |
| D919         | 23357012  | DIODE, 1SS244                            |
| D921         | 23118859  | DIODE, 1SS133                            |
| D926         | 23357012  | DIODE, 1SS244                            |
| D927         | 23357012  | DIODE, 1SS244                            |
| D928         | 23357012  | DIODE, 1SS244                            |
| D929         | 23357012  | DIODE, 1SS244                            |
| D936         | 23115337  | DIODE, 1S1834                            |
| D940         | 23118859  | DIODE, 1SS133                            |
| D941         | 23118859  | DIODE, 1SS133                            |
| D942         | 23118859  | DIODE, 1SS133                            |
| D943         | 23118859  | DIODE, 1SS133                            |
| D944         | 23118859  | DIODE, 1SS133                            |
| D945         | 23118859  | DIODE, 1SS133                            |
| D967         | 23115337  | DIODE, 1S1834                            |
| DA02         | 23316574  | DIODE, ZENER CHIP VZ6.05-6.36V, MA8062-M |

| Location No. | Parts No. | Description                       |
|--------------|-----------|-----------------------------------|
| DA23         | 23118041  | DIODE, MA111                      |
| DA43         | 23118041  | DIODE, MA111                      |
| DA44         | 23118041  | DIODE, MA111                      |
| DA45         | 23118041  | DIODE, MA111                      |
| DA46         | 23118041  | DIODE, MA111                      |
| DA70         | 23118041  | DIODE, MA111                      |
| D4401        | 23316591  | DIODE, ZENER, MA8100-M            |
| D4430        | 23357365  | DIODE, 1N4004A-B5                 |
| D4431        | 23316715  | DIODE, ZENER, MTZJ11A             |
| D4604        | 23316231  | DIODE, 1SS355                     |
| D4605        | 23316591  | DIODE, ZENER, MA8100-M            |
| D4606        | 23316231  | DIODE, 1SS355                     |
| D7703        | 23115532  | DIODE, ERB12-01                   |
| D7705        | 23118041  | DIODE, MA111                      |
| D7706        | 23118041  | DIODE, MA111                      |
| D7707        | 23118041  | DIODE, MA111                      |
| D7708        | 23118041  | DIODE, MA111                      |
| D7717        | 23118538  | DIODE, ZENER, RD6.2ESA B2         |
| D7718        | 23118538  | DIODE, ZENER, RD6.2ESA B2         |
| D7729        | 23316738  | DIODE, ZENER, MTZJ22B             |
| D7730        | 23118538  | DIODE, ZENER, RD6.2ESA B2         |
| D7731        | 23118538  | DIODE, ZENER, RD6.2ESA B2         |
| D7732        | 23115532  | DIODE, ERB12-01                   |
| D7733        | 23118499  | DIODE, ZENER, RD18ESA B2          |
| D7734        | 23118499  | DIODE, ZENER, RD18ESA B2          |
| D7735        | 23115532  | DIODE, ERB12-01                   |
| D7806        | 23118041  | DIODE, MA111                      |
| D7808        | 23316714  | DIODE, RL2Z                       |
| D7809        | 23118041  | DIODE, MA111                      |
| D7810        | 23316402  | DIODE, RL4Z                       |
| D7811        | 23118041  | DIODE, MA111                      |
| DB01         | 23358564  | DIODE, LED, SLR-56VC3FPQ          |
| DB03         | 23358522  | DIODE, LED, SIR-56SB3F            |
| DB30         | 23118041  | DIODE, MA111                      |
| DB31         | 23118041  | DIODE, MA111                      |
| DB51         | 23358573  | PHOTO DIODE, PIN 940NM, HPI-2FER4 |
| DB52         | 23118859  | DIODE, 1SS133                     |
| DB54         | 23118859  | DIODE, 1SS133                     |
| DB55         | 23118859  | DIODE, 1SS133                     |
| DB56         | 23118859  | DIODE, 1SS133                     |
| DB61         | 23118041  | DIODE, MA111                      |
| DB501        | 23118041  | DIODE, MA111                      |
| DB504        | 23118041  | DIODE, MA111                      |
| DC01         | 23118041  | DIODE, MA111                      |
| DC02         | 23118041  | DIODE, MA111                      |
| DC03         | 23118041  | DIODE, MA111                      |
| DC04         | 23118041  | DIODE, MA111                      |
| DE01         | 23316391  | DIODE, D3SB60(4103)               |
| DE03         | 23316672  | DIODE, ZENER, MTZJ5.6B            |
| DE04         | 23316381  | DIODE, RU1P                       |
| DE05         | 23316754  | DIODE, ZENER, MTZJ33B             |
| DE10         | 23357366  | DIODE, FR105-B5                   |
| DE11         | 23118859  | DIODE, 1SS133                     |
| DE12         | 23118859  | DIODE, 1SS133                     |
| DE30         | 23316637  | DIODE, SCHOTTKY, FMB-G14L         |
| DE31         | 23316663  | DIODE, ZENER, MTZJ4.3B            |
| DE32         | 23118859  | DIODE, 1SS133                     |
| DE33         | 23316819  | DIODE, RU4YX                      |
| DE40         | 23316757  | DIODE, ZENER, MTZJ36A             |
| DE50         | 23118859  | DIODE, 1SS133                     |
| DE51         | 23316637  | DIODE, SCHOTTKY, FMB-G14L         |
| DE52         | 23118859  | DIODE, 1SS133                     |
| DE53         | 23118933  | THYRISTOR, SF5J42(N)              |
| DE55         | 23316675  | DIODE, ZENER, MTZJ6.2B            |
| DE56         | 23118859  | DIODE, 1SS133                     |

| Location No.         | Parts No. | Description                                   |
|----------------------|-----------|-----------------------------------------------|
| DE57                 | 23316819  | DIODE, RU4YX                                  |
| DE58                 | 23316766  | DIODE, RU2YX                                  |
| DE59                 | 70115542  | DIODE, EK16                                   |
| DE61                 | 23357366  | DIODE, FR105-B5                               |
| DE71                 | 23316184  | DIODE, FML-G12S                               |
| DE71B                | 70391355  | SCREW, BIND HEAD TAP-TITE B,<br>BITTB 3X8 SZN |
| DE81                 | 23316714  | DIODE, RL2Z                                   |
| DE91                 | 23316714  | DIODE, RL2Z                                   |
| DG1                  | 23118041  | DIODE, MA111                                  |
| DG2                  | 23316577  | DIODE, ZENER, MA8068-M                        |
| DG3                  | 23316577  | DIODE, ZENER, MA8068-M                        |
| DG4                  | 23118041  | DIODE, MA111                                  |
| DH301                | 23316672  | DIODE, ZENER, MTZJ5.6B                        |
| DH301                | 23316672  | DIODE, ZENER, MTZJ5.6B                        |
| DH301                | 23316672  | DIODE, ZENER, MTZJ5.6B                        |
| DH301                | 23316672  | DIODE, ZENER, MTZJ5.6B                        |
| DS120                | 23316740  | DIODE, ZENER, MTZ J 22D                       |
| DV07                 | 23316577  | DIODE, ZENER, MA8068-M                        |
| DV14                 | 23316577  | DIODE, ZENER, MA8068-M                        |
| DV21                 | 23316577  | DIODE, ZENER, MA8068-M                        |
| DV25                 | 23118041  | DIODE, MA111                                  |
| DV30                 | 23316792  | DIODE, SC215                                  |
| DV31                 | 23316672  | DIODE, ZENER, MTZJ5.6B                        |
| DV39                 | 23358543  | IC, PHOTO SENSOR, S7565                       |
| DV241                | 23316587  | DIODE, ZENER, MA8091-L                        |
| DV242                | 23316587  | DIODE, ZENER, MA8091-L                        |
| DV243                | 23316587  | DIODE, ZENER, MA8091-L                        |
| DV244                | 23316587  | DIODE, ZENER, MA8091-L                        |
| DV249                | 23316587  | DIODE, ZENER, MA8091-L                        |
| DV250                | 23316587  | DIODE, ZENER, MA8091-L                        |
| DV251                | 23316577  | DIODE, ZENER, MA8068-M                        |
| DV252                | 23316577  | DIODE, ZENER, MA8068-M                        |
| DV256                | 23316587  | DIODE, ZENER, MA8091-L                        |
| DV257                | 23316587  | DIODE, ZENER, MA8091-L                        |
| DV258                | 23316587  | DIODE, ZENER, MA8091-L                        |
| <b>MISCELLANEOUS</b> |           |                                               |
| B224                 | 23035412  | SCREW, BTB4X12 SZN                            |
| B231                 | 23037312  | SCREW, BTBW3X12SZN                            |
| B232                 | 23035310  | SCREW, BTB3X10SZN                             |
| BB10                 | 23713013  | CONNECTOR, SOCKET, B-B 16P 1.5                |
| BB20                 | 23713013  | CONNECTOR, SOCKET, B-B 16P 1.5                |
| E918                 | 23737007  | BOLT, BOLT ASSY 50A60                         |
| E929                 | 23969684  | TAPE, GLASS-CLOTH, W/ADHESIVE<br>W=90 T=0.18  |
| E948                 | 23737007  | BOLT, BOLT ASSY 50A60                         |
| E959                 | 23969684  | TAPE, GLASS-CLOTH, W/ADHESIVE<br>W=90 T=0.18  |
| E978                 | 23737007  | BOLT, BOLT ASSY 50A60                         |
| E989                 | 23969684  | TAPE, GLASS-CLOTH, W/ADHESIVE<br>W=90 T=0.18  |
| F470                 | 23144624  | FUSE, AXIAL, 125V 2.0A                        |
| F801                 | 23144481  | FUSE, 125V 7.0A-T U/C MINI                    |
| F801A                | 23165433  | FUSE HOLDER, 5.2 SOC                          |
| F801B                | 23165433  | FUSE HOLDER, 5.2 SOC                          |
| F850                 | 23144510  | FUSE, AXIAL, 125V 3.5A                        |
| F851                 | 23144456  | FUSE, AXIAL, 125V 5.0A                        |
| F852                 | 23144456  | FUSE, AXIAL, 125V 5.0A                        |
| F860                 | 23144626  | FUSE, AXIAL, 125V 4.0A                        |
| F885                 | 23144511  | FUSE, AXIAL, 125V 4.0A                        |
| F891                 | 23144456  | FUSE, AXIAL, 125V 5.0A                        |
| F892                 | 23144456  | FUSE, AXIAL, 125V 5.0A                        |
| F7711                | 23144509  | FUSE, AXIAL, 125V 2.5A                        |
| F7716                | 23144509  | FUSE, AXIAL, 125V 2.5A                        |

| Location No. | Parts No. | Description                       |
|--------------|-----------|-----------------------------------|
| F7721        | 23144509  | FUSE, AXIAL, 125V 2.5A            |
| F7726        | 23144509  | FUSE, AXIAL, 125V 2.5A            |
| F7731        | 23144509  | FUSE, AXIAL, 125V 2.5A            |
| F7736        | 23144509  | FUSE, AXIAL, 125V 2.5A            |
| FE01         | 23144454  | FUSE, AXIAL, 125V 2.0A            |
| FE40         | 23144509  | FUSE, AXIAL, 125V 2.5A            |
| FE61         | 23144515  | FUSE, AXIAL, 125V 1.0A            |
| FE71         | 23144511  | FUSE, AXIAL, 125V 4.0A            |
| FE81         | 23144454  | FUSE, AXIAL, 125V 2.0A            |
| FE91         | 23144455  | FUSE, AXIAL, 125V 3.0A            |
| G101         | 24011151  | CHIP, METAL FILM, 1/20W 150 OHM J |
| G102         | 24011151  | CHIP, METAL FILM, 1/20W 150 OHM J |
| G904         | 23118859  | DIODE, 1SS133                     |
| G905         | 23118859  | DIODE, 1SS133                     |
| G914         | 23118859  | DIODE, 1SS133                     |
| G915         | 23118859  | DIODE, 1SS133                     |
| G924         | 23118859  | DIODE, 1SS133                     |
| G925         | 23118859  | DIODE, 1SS133                     |
| G934         | 24366560  | CARBON FILM, 1/6W 56 OHM J        |
| G944         | 24366560  | CARBON FILM, 1/6W 56 OHM J        |
| G954         | 24366560  | CARBON FILM, 1/6W 56 OHM J        |
| GJ1          | 24000445  | CHIP JUMPER, 1608TYPE             |
| GJ2          | 24000445  | CHIP JUMPER, 1608TYPE             |
| GJ3          | 24000445  | CHIP JUMPER, 1608TYPE             |
| GJ4          | 24000445  | CHIP JUMPER, 1608TYPE             |
| GJ8          | 24000445  | CHIP JUMPER, 1608TYPE             |
| GJ07         | 24000824  | CHIP JUMPER, 2125TYPE             |
| GJ10         | 24000824  | CHIP JUMPER, 2125TYPE             |
| GJ13         | 24000445  | CHIP JUMPER, 1608TYPE             |
| GJ14         | 24000445  | CHIP JUMPER, 1608TYPE             |
| GJ15         | 24000445  | CHIP JUMPER, 1608TYPE             |
| GJ16         | 24000445  | CHIP JUMPER, 1608TYPE             |
| GJ17         | 24000445  | CHIP JUMPER, 1608TYPE             |
| GJ18         | 24000445  | CHIP JUMPER, 1608TYPE             |
| GJ19         | 24000445  | CHIP JUMPER, 1608TYPE             |
| GJ31         | 24000445  | CHIP JUMPER, 1608TYPE             |
| GJ32         | 24000445  | CHIP JUMPER, 1608TYPE             |
| GJ79         | 24000824  | CHIP JUMPER, 2125TYPE             |
| GJ81         | 24000824  | CHIP JUMPER, 2125TYPE             |
| GJ83         | 24000824  | CHIP JUMPER, 2125TYPE             |
| GJ101        | 24000445  | CHIP JUMPER, 1608TYPE             |
| GJ102        | 24000445  | CHIP JUMPER, 1608TYPE             |
| GJ105        | 24000445  | CHIP JUMPER, 1608TYPE             |
| GJ113        | 24000445  | CHIP JUMPER, 1608TYPE             |
| GJ115        | 24000824  | CHIP JUMPER, 2125TYPE             |
| GJ121        | 24000445  | CHIP JUMPER, 1608TYPE             |
| GJ122        | 24000445  | CHIP JUMPER, 1608TYPE             |
| GJ124        | 24000824  | CHIP JUMPER, 2125TYPE             |
| GJ126        | 24000445  | CHIP JUMPER, 1608TYPE             |
| GJ127        | 24000445  | CHIP JUMPER, 1608TYPE             |
| GJ128        | 24000445  | CHIP JUMPER, 1608TYPE             |
| GJ201        | 24000445  | CHIP JUMPER, 1608TYPE             |
| GJ202        | 24000445  | CHIP JUMPER, 1608TYPE             |
| GJ203        | 24000445  | CHIP JUMPER, 1608TYPE             |
| GJ204        | 24011220  | CHIP, METAL FILM, 1/20W 22 OHM J  |
| GJ205        | 24000445  | CHIP JUMPER, 1608TYPE             |
| GJ208        | 24000445  | CHIP JUMPER, 1608TYPE             |
| GJ210        | 24000445  | CHIP JUMPER, 1608TYPE             |
| GJ216        | 24000445  | CHIP JUMPER, 1608TYPE             |
| GJ223        | 24000445  | CHIP JUMPER, 1608TYPE             |
| GJ224        | 24000445  | CHIP JUMPER, 1608TYPE             |
| GJ225        | 24000445  | CHIP JUMPER, 1608TYPE             |
| GJ226        | 24000445  | CHIP JUMPER, 1608TYPE             |
| GJ227        | 24000445  | CHIP JUMPER, 1608TYPE             |
| GJ228        | 24000445  | CHIP JUMPER, 1608TYPE             |

| Location No. | Parts No. | Description                                       |
|--------------|-----------|---------------------------------------------------|
| GJ229        | 24000445  | CHIP JUMPER, 1608TYPE                             |
| GJ230        | 24000445  | CHIP JUMPER, 1608TYPE                             |
| GJ471        | 24000445  | CHIP JUMPER, 1608TYPE                             |
| GJ472        | 24000445  | CHIP JUMPER, 1608TYPE                             |
| GJ603        | 24000445  | CHIP JUMPER, 1608TYPE                             |
| GJ710        | 24000445  | CHIP JUMPER, 1608TYPE                             |
| GJ711        | 24000445  | CHIP JUMPER, 1608TYPE                             |
| GJ771        | 24000445  | CHIP JUMPER, 1608TYPE                             |
| GJ772        | 24000445  | CHIP JUMPER, 1608TYPE                             |
| GJ773        | 24000445  | CHIP JUMPER, 1608TYPE                             |
| GJ774        | 24000445  | CHIP JUMPER, 1608TYPE                             |
| GJ775        | 24000445  | CHIP JUMPER, 1608TYPE                             |
| GJ776        | 24000445  | CHIP JUMPER, 1608TYPE                             |
| GJA33        | 24000445  | CHIP JUMPER, 1608TYPE                             |
| GR96         | 24000445  | CHIP JUMPER, 1608TYPE                             |
| GR99         | 24000445  | CHIP JUMPER, 1608TYPE                             |
| H002         | 23148042  | IF MODULE, US WOW MSP3440G, MVUS51                |
| H003         | 23344488  | SWITCH, 2130 US DIGITAL JALCO, RSU141             |
| H003A        | 23740989  | NUT, F-CONNECTOR 2H BS                            |
| JY508        | 24000445  | CHIP JUMPER, 1608TYPE                             |
| JY509        | 24000445  | CHIP JUMPER, 1608TYPE                             |
| KB01         | 23000852  | IC, REMOTE PHOTO RECEIVER, PIC-37043TE2           |
| P101         | 23367070  | PLUG, NP 2.5MM G JST-EH B10B-EH-F1A               |
| P105         | 23368578  | CONNECTOR, PLUG, 4P 2.5MM G JST-EH, B4B-EH-F1-TV4 |
| P111         | 23367068  | PLUG, 8P 2.5MM G JST-EH B8B-EH-F1-TV4             |
| P112         | 23368578  | CONNECTOR, PLUG, 4P 2.5MM G JST-EH, B4B-EH-F1-TV4 |
| P113         | 23368579  | CONNECTOR, PLUG, 5P 2.5MM G JST-EH, B5B-EH-F1-TV4 |
| P122         | 23367068  | PLUG, 8P 2.5MM G JST-EH B8B-EH-F1-TV4             |
| P404         | 23368579  | CONNECTOR, PLUG, 5P 2.5MM G JST-EH, B5B-EH-F1-TV4 |
| P410         | 23368581  | CONNECTOR, PLUG, 7P 2.5MM G JST-EH, B7B-EH-F1-TV4 |
| P411         | 23368580  | PLUG, 6P 2.5MM G JST-EH B6B-EH-F1-TV4             |
| P412         | 23713014  | CONNECTOR, BRIDGE PLUG 16P 1.5                    |
| P413         | 23713014  | CONNECTOR, BRIDGE PLUG 16P 1.5                    |
| P540         | 23903176  | SOCKET, SOCKET 60P TKD 136901160W4                |
| P704         | 23368577  | CONNECTOR, PLUG, 3P 2.5MM G JST-EH, B3B-EH-F1-TV4 |
| P706A        | 23368578  | CONNECTOR, PLUG, 4P 2.5MM G JST-EH, B4B-EH-F1-TV4 |
| P706B        | 23368578  | CONNECTOR, PLUG, 4P 2.5MM G JST-EH, B4B-EH-F1-TV4 |
| P708         | 23902655  | CONNECTOR, B-B 15P                                |
| P708B        | 23368580  | PLUG, 6P 2.5MM G JST-EH B6B-EH-F1-TV4             |
| P709         | 23902655  | CONNECTOR, B-B 15P                                |
| P709B        | 23368580  | PLUG, 6P 2.5MM G JST-EH B6B-EH-F1-TV4             |
| P710         | 23902655  | CONNECTOR, B-B 15P                                |
| P711         | 23367724  | CONNECTOR, PLUG B-B 15P                           |
| P777         | 23368577  | CONNECTOR, PLUG, 3P 2.5MM G JST-EH, B3B-EH-F1-TV4 |
| P800         | 23368013  | CONNECTOR, PLUG, 2P 11.88MM W VT-JST              |
| P801         | 23372117  | POWER CORD, U/C 125V10A HSV 5, CMC-02P 5          |
| P810A        | 23368581  | CONNECTOR, PLUG, 7P 2.5MM G JST-EH, B7B-EH-F1-TV4 |
| P811A        | 23367070  | PLUG, NP 2.5MM G JST-EH B10B-EH-F1A               |
| P813A        | 23368580  | PLUG, 6P 2.5MM G JST-EH B6B-EH-F1-TV4             |
| P814A        | 23367069  | CONNECTOR, PLUG, NP 2.5MM G JST-EH, B9B-EH-F1A    |
| P814B        | 23367069  | CONNECTOR, PLUG, NP 2.5MM G JST-EH, B9B-EH-F1A    |

| Location No. | Parts No. | Description                                       |
|--------------|-----------|---------------------------------------------------|
| P815A        | 23367068  | PLUG, 8P 2.5MM G JST-EH B8B-EH-F1-TV4             |
| P815B        | 23367068  | PLUG, 8P 2.5MM G JST-EH B8B-EH-F1-TV4             |
| P820         | 23368578  | CONNECTOR, PLUG, 4P 2.5MM G JST-EH, B4B-EH-F1-TV4 |
| P870B        | 23367070  | PLUG, NP 2.5MM G JST-EH B10B-EH-F1A               |
| P900         | 23164563  | CONNECTOR, PLUG 3P                                |
| P900         | 23164563  | CONNECTOR, PLUG 3P                                |
| P900         | 23164563  | CONNECTOR, PLUG 3P                                |
| P900         | 23164563  | CONNECTOR, PLUG 3P                                |
| P912A        | 23368579  | CONNECTOR, PLUG, 5P 2.5MM G JST-EH, B5B-EH-F1-TV4 |
| P912B        | 23368579  | CONNECTOR, PLUG, 5P 2.5MM G JST-EH, B5B-EH-F1-TV4 |
| P913         | 23368577  | CONNECTOR, PLUG, 3P 2.5MM G JST-EH, B3B-EH-F1-TV4 |
| P914A        | 23368578  | CONNECTOR, PLUG, 4P 2.5MM G JST-EH, B4B-EH-F1-TV4 |
| P914B        | 23368578  | CONNECTOR, PLUG, 4P 2.5MM G JST-EH, B4B-EH-F1-TV4 |
| P915A        | 23368580  | PLUG, 6P 2.5MM G JST-EH B6B-EH-F1-TV4             |
| P915B        | 23368580  | PLUG, 6P 2.5MM G JST-EH B6B-EH-F1-TV4             |
| P916A        | 23368581  | CONNECTOR, PLUG, 7P 2.5MM G JST-EH, B7B-EH-F1-TV4 |
| P916B        | 23368581  | CONNECTOR, PLUG, 7P 2.5MM G JST-EH, B7B-EH-F1-TV4 |
| P917         | 23368579  | CONNECTOR, PLUG, 5P 2.5MM G JST-EH, B5B-EH-F1-TV4 |
| P918         | 23368580  | PLUG, 6P 2.5MM G JST-EH B6B-EH-F1-TV4             |
| P919         | 23368577  | CONNECTOR, PLUG, 3P 2.5MM G JST-EH, B3B-EH-F1-TV4 |
| PA01A        | 23368578  | CONNECTOR, PLUG, 4P 2.5MM G JST-EH, B4B-EH-F1-TV4 |
| PA01B        | 23368578  | CONNECTOR, PLUG, 4P 2.5MM G JST-EH, B4B-EH-F1-TV4 |
| PA02A        | 23368577  | CONNECTOR, PLUG, 3P 2.5MM G JST-EH, B3B-EH-F1-TV4 |
| PA02B        | 23368577  | CONNECTOR, PLUG, 3P 2.5MM G JST-EH, B3B-EH-F1-TV4 |
| PB11         | 23368587  | CONNECTOR, PLUG, 8P 2.5MM W EH-JST, S8B-EH        |
| PB13A        | 23367677  | PLUG, 4P                                          |
| PB22         | 23368578  | CONNECTOR, PLUG, 4P 2.5MM G JST-EH, B4B-EH-F1-TV4 |
| PB51         | 23368577  | CONNECTOR, PLUG, 3P 2.5MM G JST-EH, B3B-EH-F1-TV4 |
| PB60         | 23367070  | PLUG, NP 2.5MM G JST-EH B10B-EH-F1A               |
| PB501        | 23023128  | JACK, PHONE J, YKB21-5290N                        |
| PB503        | 23368577  | CONNECTOR, PLUG, 3P 2.5MM G JST-EH, B3B-EH-F1-TV4 |
| PE41         | 23367069  | CONNECTOR, PLUG, NP 2.5MM G JST-EH, B9B-EH-F1A    |
| PE42         | 23367071  | CONNECTOR, PLUG, NP 2.5MM G JST-EH, B11B-EH-F1A   |
| PE50         | 23368581  | CONNECTOR, PLUG, 7P 2.5MM G JST-EH, B7B-EH-F1-TV4 |
| PE51         | 23368578  | CONNECTOR, PLUG, 4P 2.5MM G JST-EH, B4B-EH-F1-TV4 |
| PG5          | 70163086  | JACK 3.5MM, LGY3319-0111                          |
| PG10         | 23903176  | SOCKET, SOCKET 60P TKD 136901160W4                |
| PG220        | 23365763  | PHONO JACK, 3P                                    |
| PG223        | 23367068  | PLUG, 8P 2.5MM G JST-EH B8B-EH-F1-TV4             |
| PV01         | 23023094  | JACK, PIN 1S6P SMK, LAP5120-0205FC                |
| PV02         | 23365819  | JACK, 1S3P                                        |
| PV02         | 23023096  | JACK, PIN 10P SMK, LAP5120-0401FC                 |
| PV05         | 23023095  | JACK, PIN 8P SMK, LAP5120-0411FC                  |

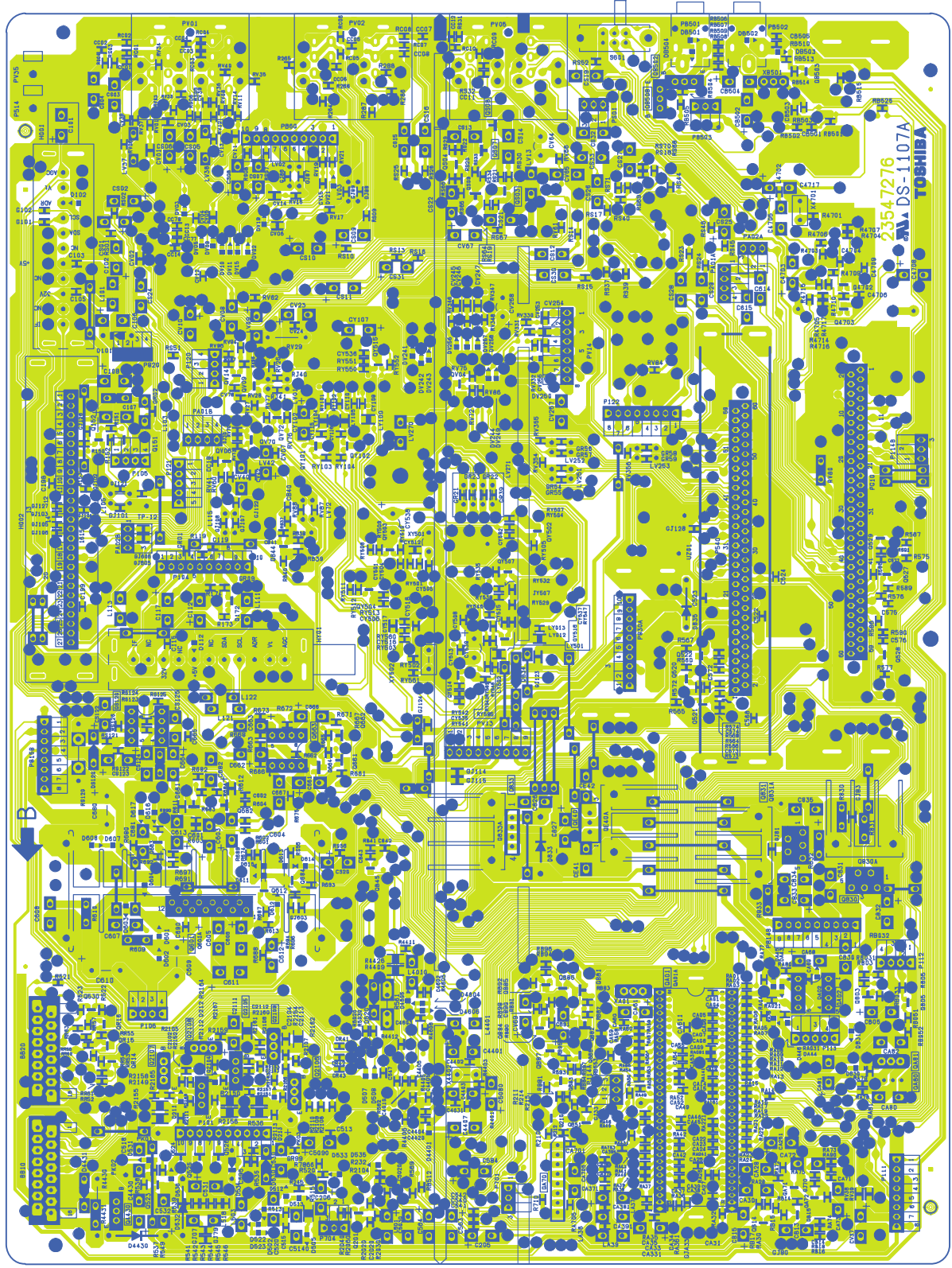
| Location No. | Parts No. | Description                                |
|--------------|-----------|--------------------------------------------|
| PV60         | 23367070  | PLUG, NP 2.5MM G JST-EH B10B-EH-F1A        |
| S601         | 23344456  | SWITCH, SLIDE SK22F28G9A MORNI             |
| SA01         | 23145226  | SWITCH, 1C1P, PUSH                         |
| SA02         | 23145226  | SWITCH, 1C1P, PUSH                         |
| SA03         | 23145226  | SWITCH, 1C1P, PUSH                         |
| SA04         | 23145226  | SWITCH, 1C1P, PUSH                         |
| SA05         | 23145226  | SWITCH, 1C1P, PUSH                         |
| SA06         | 23145226  | SWITCH, 1C1P, PUSH                         |
| SA07         | 23145226  | SWITCH, 1C1P, PUSH                         |
| SA08         | 23145226  | SWITCH, 1C1P, PUSH                         |
| SA09         | 23145226  | SWITCH, 1C1P, PUSH                         |
| SR81         | 23146574  | RELAY, DLS5D1-O(M) 0.15W                   |
| SR82         | 23146564  | RELAY, DC12V, TV5, DG-3                    |
| UH01         | 23148077  | MODULE, D-CONVER, MDCU11A                  |
| UZ01         | 23148053  | SCAN CONVERTER MODUL, G.HYPER MVP42        |
| UZ02         | 23148064  | MODULE, DIGITAL, SHU152                    |
| V901A        | 23903168  | SOCKET, CVT3277-5104G SMK, CVT3277-5104G   |
| V902A        | 23903168  | SOCKET, CVT3277-5104G SMK, CVT3277-5104G   |
| V903A        | 23903168  | SOCKET, CVT3277-5104G SMK, CVT3277-5104G   |
| W661         | 23351183  | SPEAKER, SPK1424AM, 160X160 8-OHM 20W      |
| W662         | 23351183  | SPEAKER, SPK1424AM, 160X160 8-OHM 20W      |
| W663         | 23351220  | SPEAKER, TWC 50X50 16-OHM 20W, SPK-1417BM  |
| W664         | 23351220  | SPEAKER, TWC 50X50 16-OHM 20W, SPK-1417BM  |
| X4402        | 23153721  | CERAMIC RESONATOR, 503KHZ                  |
| X4701        | 23153721  | CERAMIC RESONATOR, 503KHZ                  |
| XA01         | 23153533  | CERAMIC RESONATOR, CERA RESO, TCR1082AM    |
| XB501        | 23153504  | CERAMIC RESONATOR, 8.00MHZ 250HM           |
| XG1          | 23153563  | CRYSTAL RESONATOR, 12.0MHZ                 |
| XV01         | 23153533  | CERAMIC RESONATOR, CERA RESO, TCR1082AM    |
| XY501        | 23153961  | CRYSTAL, 3.58MHZ                           |
| XY502        | 23153721  | CERAMIC RESONATOR, 503KHZ                  |
| Z401         | 23140203  | SPARK GAP, 2.0-3.0KV C-010, AG20PC152F-L3N |
| Z410         | 23110841  | FOCUS PACK, TPA6030                        |
| Z450         | 24083013  | COMPOSITE PARTS, CR-BLOCK, TPA5010AH       |
| Z450A        | 23501755  | ANODE CABLE, 400LD FBT-C                   |
| ZC21         | 24019404  | CHIP BLOCK, 1/16W P-8 10K OHM J            |
| ZC22         | 24019439  | CHIP BLOCK, 1/16W P-8 47 OHM J             |
| ZC41         | 24019439  | CHIP BLOCK, 1/16W P-8 47 OHM J             |
| ZC42         | 24019439  | CHIP BLOCK, 1/16W P-8 47 OHM J             |
| ZC44         | 24019403  | CHIP BLOCK, 1/16W P-8 100K OHM J           |
| ZC45         | 24019403  | CHIP BLOCK, 1/16W P-8 100K OHM J           |
| ZC46         | 24019403  | CHIP BLOCK, 1/16W P-8 100K OHM J           |
| ZC47         | 24019403  | CHIP BLOCK, 1/16W P-8 100K OHM J           |
| ZC48         | 24019439  | CHIP BLOCK, 1/16W P-8 47 OHM J             |
| ZG1          | 24019436  | CHIP BLOCK, 1/16W P-8 22 OHM J             |
| ZG2          | 24019436  | CHIP BLOCK, 1/16W P-8 22 OHM J             |
| ZG3          | 24019436  | CHIP BLOCK, 1/16W P-8 22 OHM J             |
| ZG4          | 24019436  | CHIP BLOCK, 1/16W P-8 22 OHM J             |
| ZG5          | 24019436  | CHIP BLOCK, 1/16W P-8 22 OHM J             |
| ZG6          | 24019436  | CHIP BLOCK, 1/16W P-8 22 OHM J             |
| ZH04         | 23103778  | FILTER, FERRITE CORE, TFE1008              |
| ZH05         | 23103840  | FERRITE CORE, TFE1013                      |
| ZI51         | 23303197  | PIF SAW FILTER, TSF1248P                   |
| ZI52         | 23303271  | FILTER, TRAP 4.5MHZ, TCF1138AM             |
| ZI53         | 23303289  | FILTER, TCF1141AM                          |
| ZI55         | 23303244  | FILTER, CERAMIC TRAP, TCF1121AM            |

| Location No.               | Parts No. | Description                                          |
|----------------------------|-----------|------------------------------------------------------|
| ZV60                       | 23103778  | FILTER, FERRITE CORE, TFE1008                        |
| <b>PC BOARD ASSEMBLIES</b> |           |                                                      |
| * E031Z                    | 23788905  | CRT-D/R BOARD, PD1153C-1                             |
| * E032Z                    | 23788906  | CRT-D/G BOARD, PD1153C-2                             |
| * E033Z                    | 23788907  | CRT-D/B BOARD, PD1153C-3                             |
| * E034Z                    | 23788908  | SVM/R BOARD, PD1153C-4                               |
| * E035Z                    | 23788909  | SVM/G BOARD, PD1153C-5                               |
| * E036Z                    | 23788910  | SVM/B BOARD, PD1153C-6                               |
| * E041Z                    | 23788825  | FRONT-CON BOARD, PD1154B-1                           |
| * E042Z                    | 23788826  | FRONT-IN BOARD, PD1154B-2                            |
| * E043Z                    | 23788827  | REM BOARD, PD1154B-3                                 |
| * E044Z                    | 23788828  | FRONT-SEN BOARD, PD1154B-4                           |
| * E045Z                    | 23788823  | IR BLASTER BOARD, PD1289                             |
| * E051Z                    | 23786222  | CONV-SEN BOARD, PD0079-1                             |
| * E052Z                    | 23786223  | CONV-SEN2 BOARD, PD0079-2                            |
| * E053Z                    | 23786224  | CONV-SEN3 BOARD, PD0079-3                            |
| * E054Z                    | 23786225  | CONV-SEN4 BOARD, PD0079-4                            |
| * U401                     | 23788897  | DEFCONVER BOARD, PD1147D                             |
| * U701                     | 23788563  | CONVER OUT BOARD, PD1163A-2                          |
| * U801                     | 23788756  | POWER BOARD, PD1151C                                 |
| * U802                     | 23788757  | SUB POWER BOARD, PD1284                              |
| * U901                     | 23788898  | SIGNAL BOARD, PD1146D                                |
| * UC01                     | 23788787  | MULTI CARD BOARD, PD1281                             |
| * UD01                     | 23788562  | DD CON BOARD, PD1163A-1                              |
| * UF01                     | 23761108  | IF BOARD, PD1022C                                    |
| * UG01                     | 23788760  | GEMSTAR BOARD, PD1283                                |
| * UV02                     | 23788762  | DVI BOARD, PD0647B                                   |
| * UV03                     | 23788759  | REC OUT BOARD, PD1282                                |
| <b>PICTURE TUBE</b>        |           |                                                      |
| △ V901R                    | 23072791  | OTHER BLOCK, COUPLING R (51HX93)                     |
| △ V901R                    | 23072139  | OTHER BLOCK, COUPLING R (57HX93)                     |
| △ V901R                    | 23072794  | OTHER BLOCK, COUPLING R (65HX93)                     |
| △ V902G                    | 23072792  | OTHER BLOCK, COUPLING G (51HX93)                     |
| △ V902G                    | 23072140  | OTHER BLOCK, COUPLING G (57HX93)                     |
| △ V902G                    | 23072795  | OTHER BLOCK, COUPLING G (65HX93)                     |
| △ V903B                    | 23072793  | OTHER BLOCK, COUPLING B (51HX93)                     |
| △ V903B                    | 23072141  | OTHER BLOCK, COUPLING B (57HX93)                     |
| △ V903B                    | 23072796  | OTHER BLOCK, COUPLING B (65HX93)                     |
| <b>TUNER</b>               |           |                                                      |
| H001                       | 23321460  | TUNER, US181CH IIC FONO 5V, ELA52LX2                 |
| HY01                       | 23321460  | TUNER, US181CH IIC FONO 5V, ELA52LX2                 |
| <b>ACCESSORIES</b>         |           |                                                      |
| K912                       | 23306510  | REMOCON HAND UNIT IR, DTVUSA, CT-90168               |
| K913                       | 23306465  | REMOCON HAND UNIT, IR BLAST VTR CONT                 |
| Y101                       | 23566005  | OWNER'S MANUAL, ENGLISH/FRENCH, 51HX93/57HX93/65HX93 |
| <b>CABINET PARTS</b>       |           |                                                      |
| A001                       | 23411874  | CABINET, WOOD CAB SHIP (51HX93)                      |
| A001                       | 23411875  | CABINET, WOOD CAB SHIP (57HX93)                      |
| A001                       | 23411876  | CABINET, WOOD CAB SHIP (65HX93)                      |
| A102                       | 23527286  | GRILLE, SPEAKER GRILLE ASY (51HX93)                  |
| A102                       | 23527287  | GRILLE, SPEAKER GRILLE ASY (57HX93)                  |
| A102                       | 23527288  | GRILLE, SPEAKER GRILLE ASY (65HX93)                  |
| A160                       | 23469228  | CASTER                                               |
| A201                       | 23532007  | COVER, BEZEL (51HX93)                                |
| A201                       | 23530860  | COVER, BEZEL PROPER (57HX93)                         |
| A201                       | 23532071  | COVER, BEZEL (65HX93)                                |
| A202                       | 23450671  | PANEL, CONTROL PANEL ASSEMBLY                        |
| A213                       | 23428201  | DOOR, DOOR                                           |
| A215                       | 23929911  | PIECE, SNAP-IN GEAR DAMPER CONNON                    |

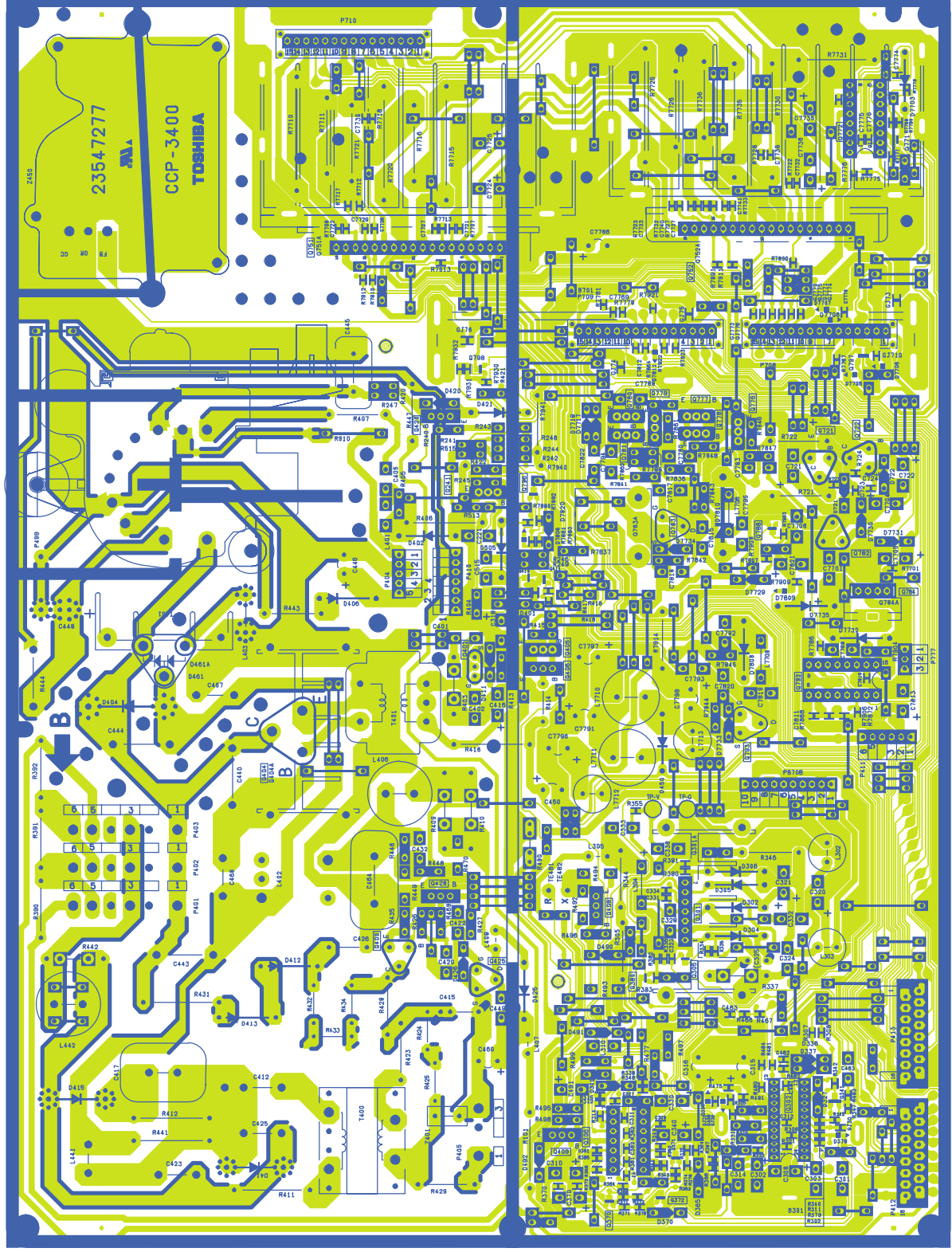


**THIS PAGE IS  
INTENTIONALLY LEFT  
BLANK.**

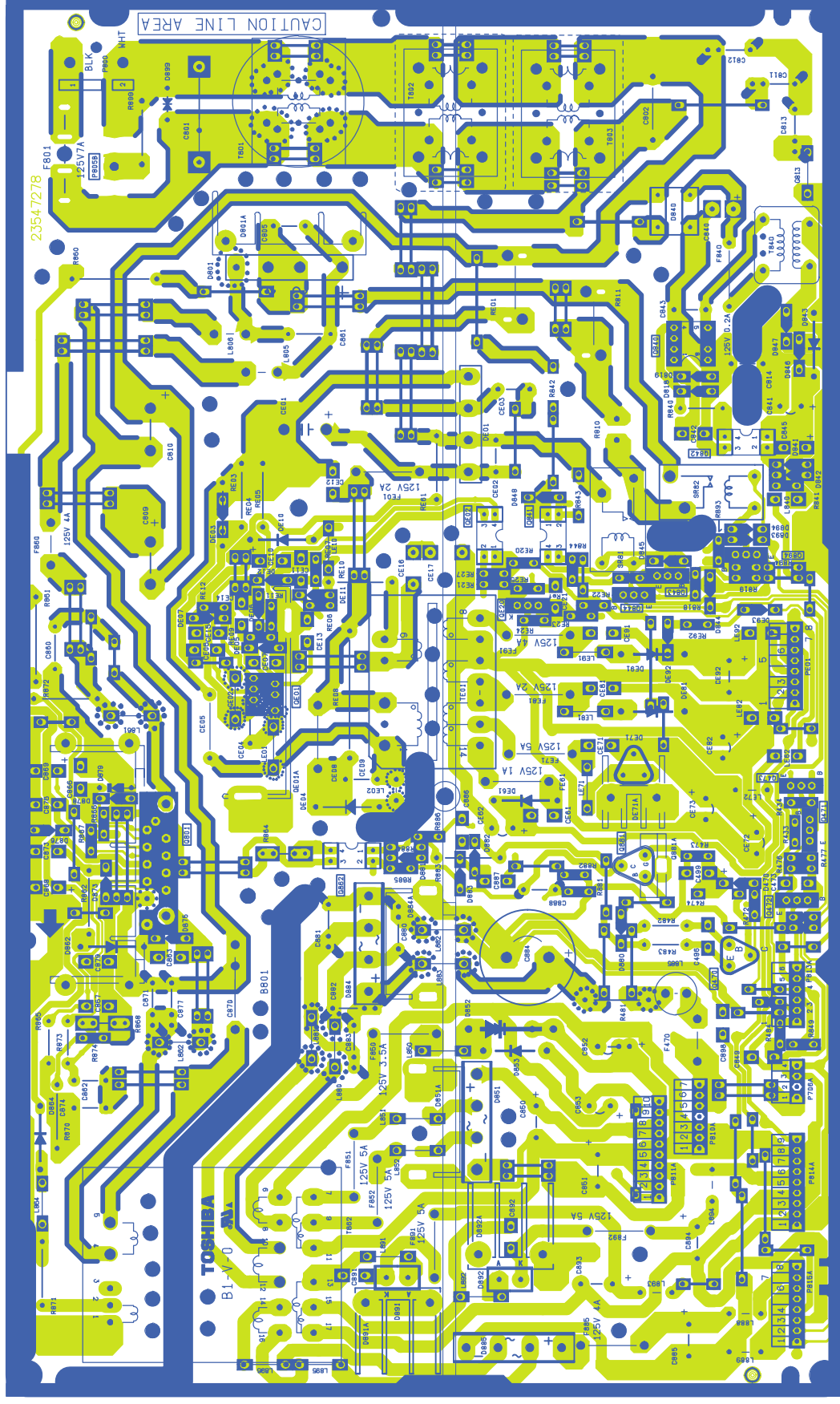
**SIGNAL BOARD PD1146D**  
**BOTTOM (FOIL) SIDE**



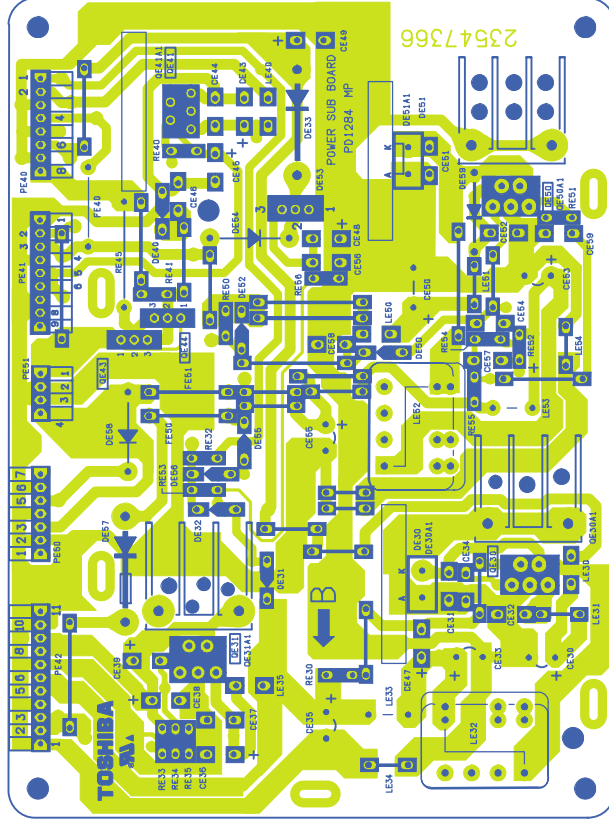
**DEF/CONVER BOARD PD1147D**  
**BOTTOM (FOIL) SIDE**



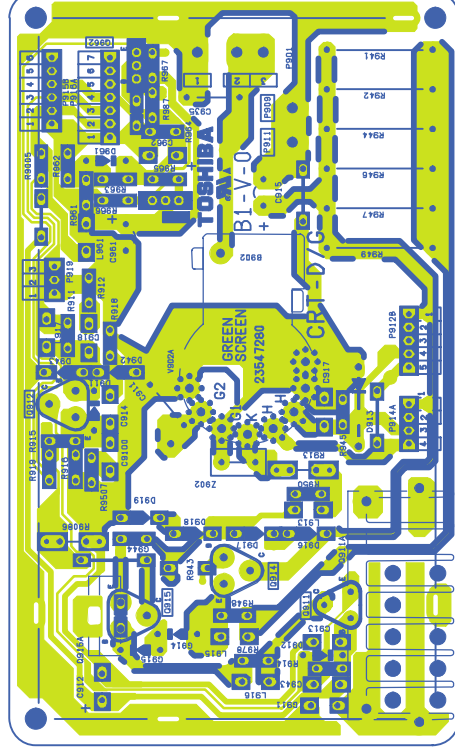
**POWER BOARD PD1151C**  
**BOTTOM (FOIL) SIDE**



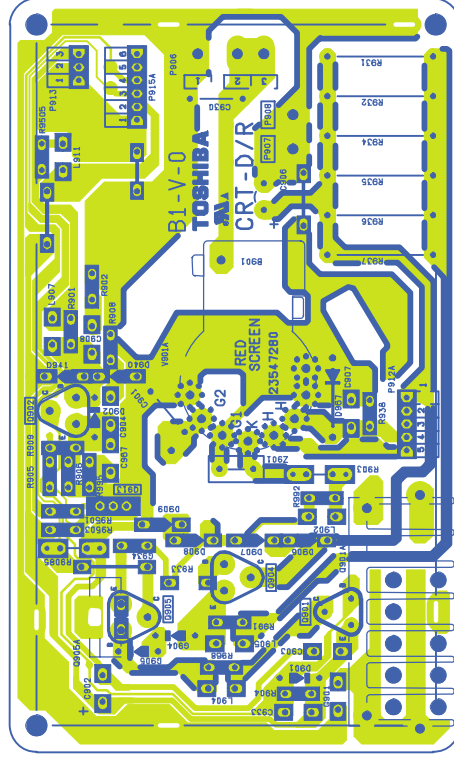
**SUB POWER BOARD PD1284**  
BOTTOM (FOIL) SIDE



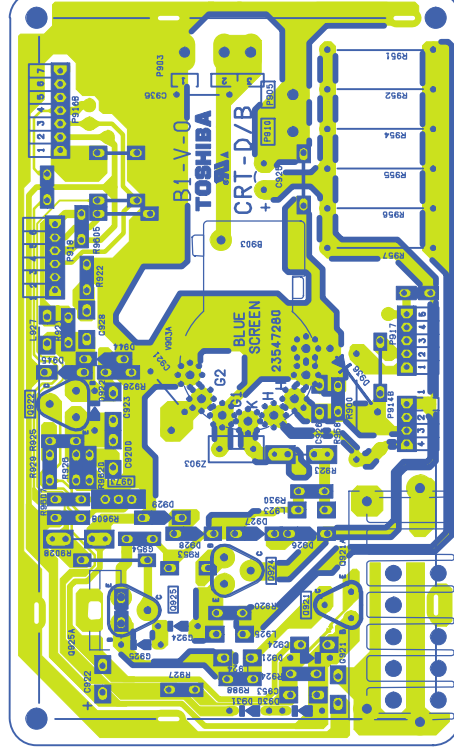
**CRT-D/G BOARD PD1153C-2**  
BOTTOM (FOIL) SIDE



**CRT-D/R BOARD PD1153C-1**  
BOTTOM (FOIL) SIDE

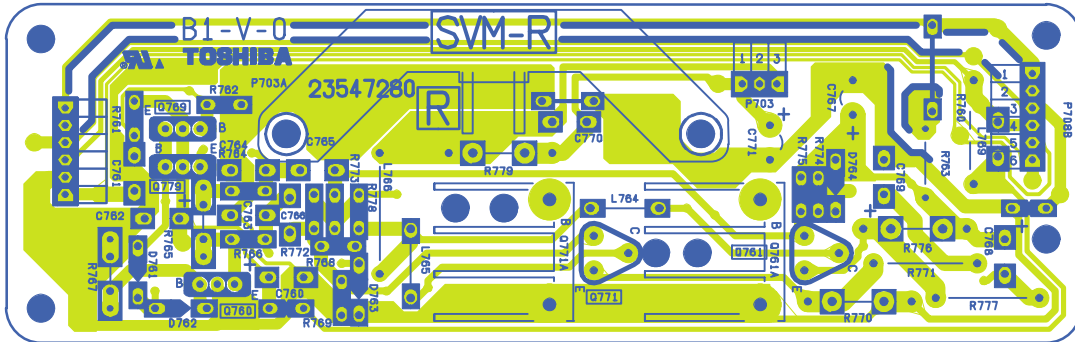


**CRT-D/B BOARD PD1153C-3**  
BOTTOM (FOIL) SIDE



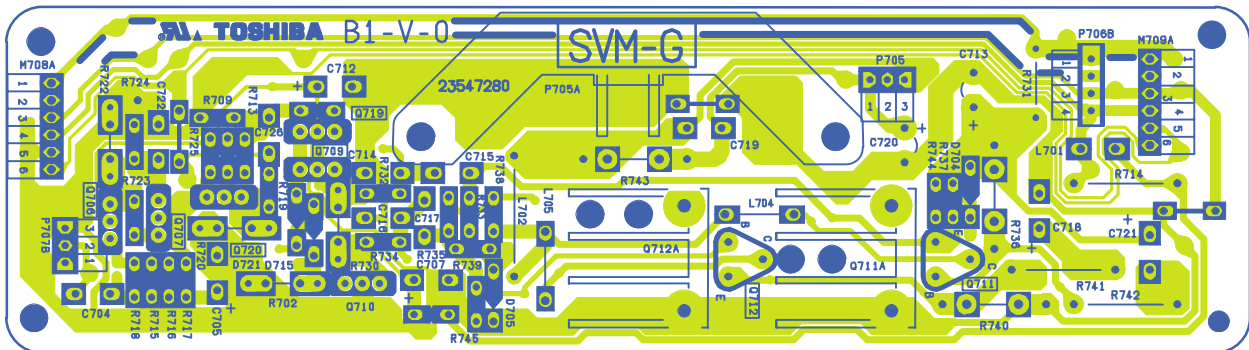
## SVM/R BOARD PD1153C-4

BOTTOM (FOIL) SIDE



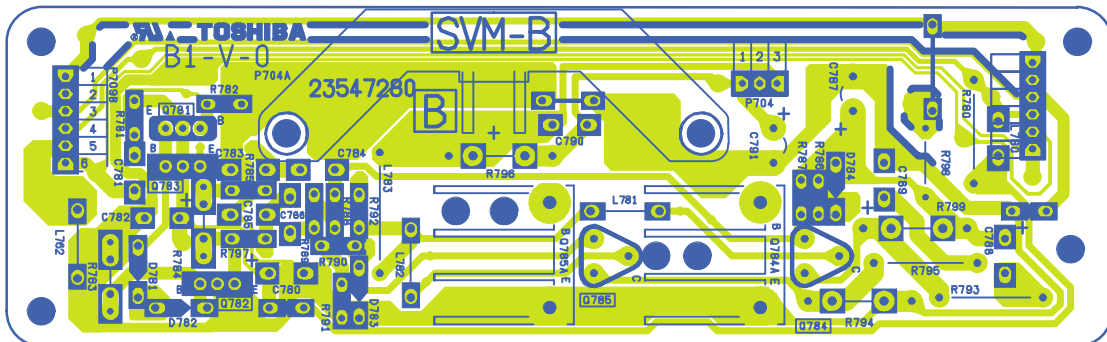
## SVM/G BOARD PD1153C-5

BOTTOM (FOIL) SIDE

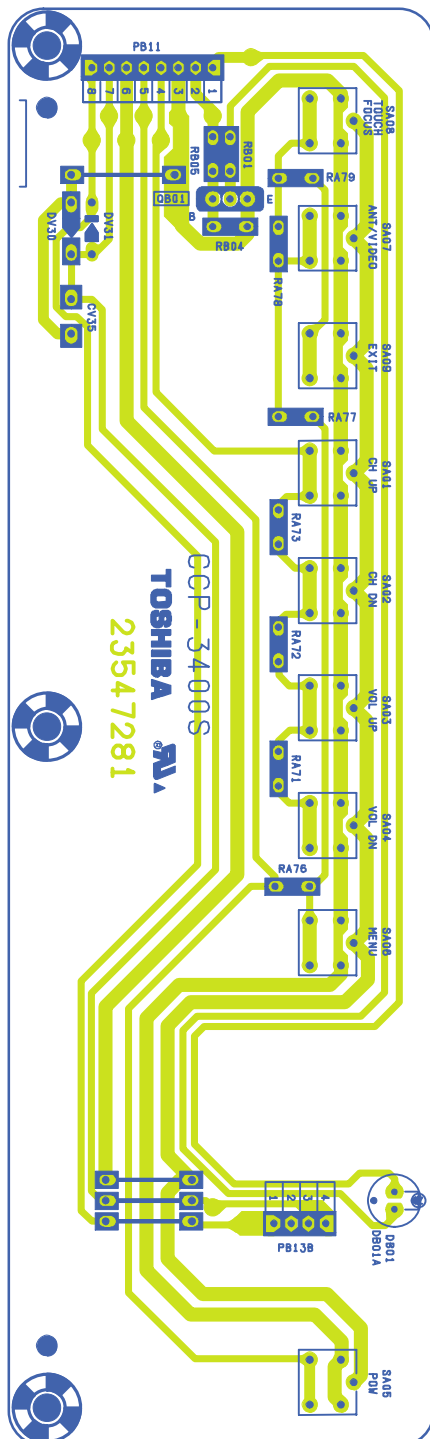


## SVM/B BOARD PD1153C-6

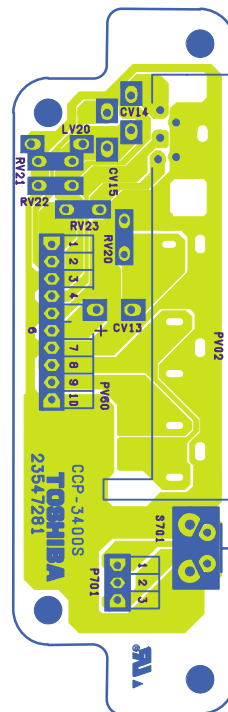
BOTTOM (FOIL) SIDE



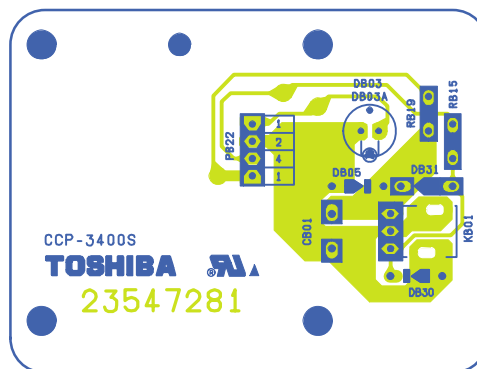
**FRONT-CON BOARD PD1154B-1**  
BOTTOM (FOIL) SIDE



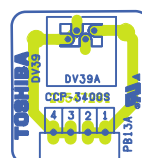
**FRONT-IN BOARD PD1154B-2**  
BOTTOM (FOIL) SIDE



**REM BOARD PD1154B-3**  
BOTTOM (FOIL) SIDE



**FRONT-SEN BOARD PD1154B-4**  
BOTTOM (FOIL) SIDE



**BOTTOM (FOIL) SIDE**



**BOTTOM (FOIL) SIDE**



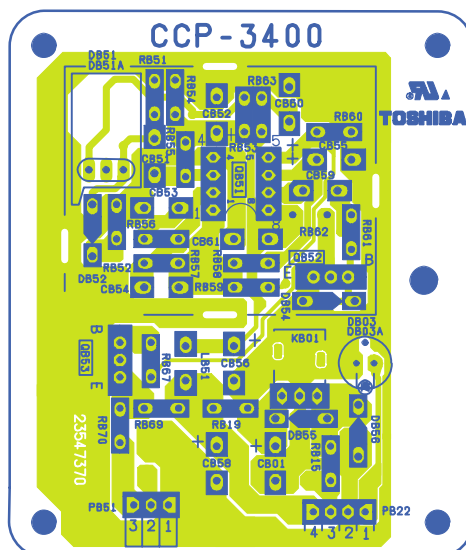
**BOTTOM (FOIL) SIDE**



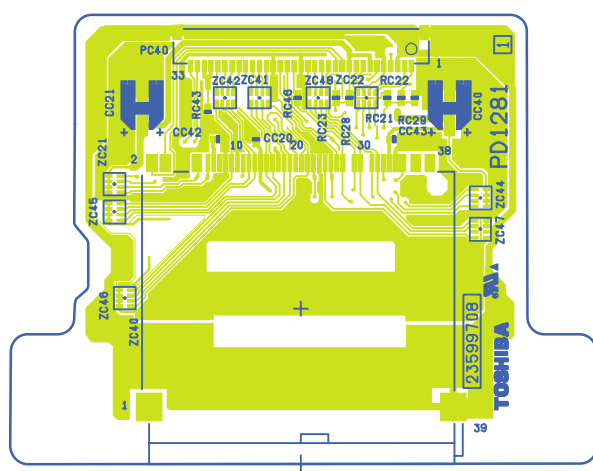
**BOTTOM (FOIL) SIDE**



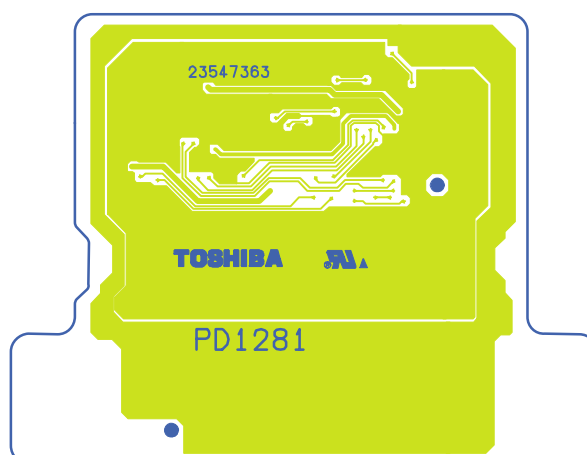
**IR BLASTER BOARD PD1289**  
**BOTTOM (FOIL) SIDE**



**MULTI CARD BOARD PD1281**  
**TOP (FOIL) SIDE**

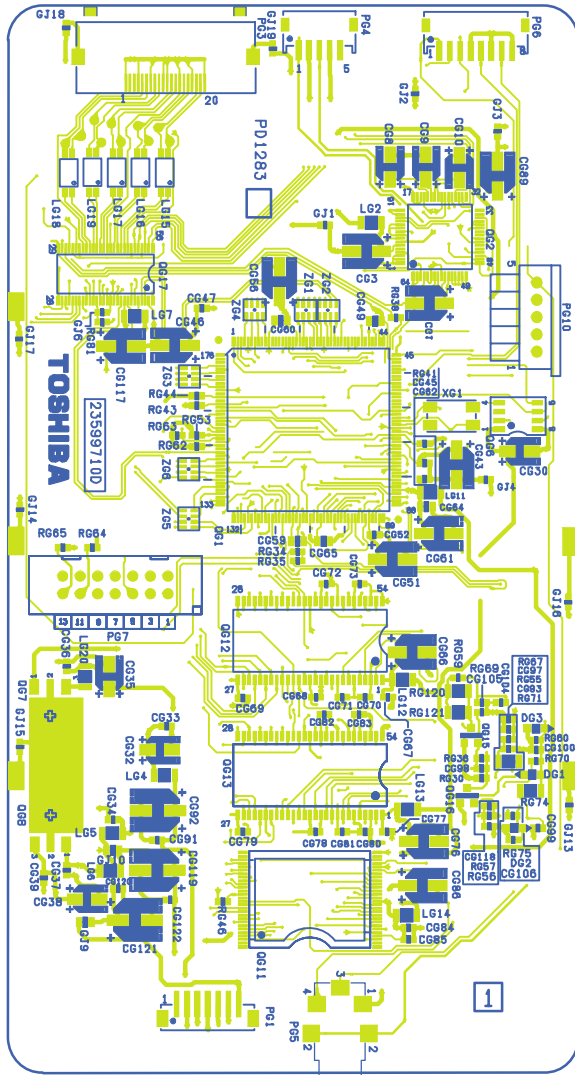


**MULTI CARD BOARD PD1281**  
**BOTTOM (FOIL) SIDE**



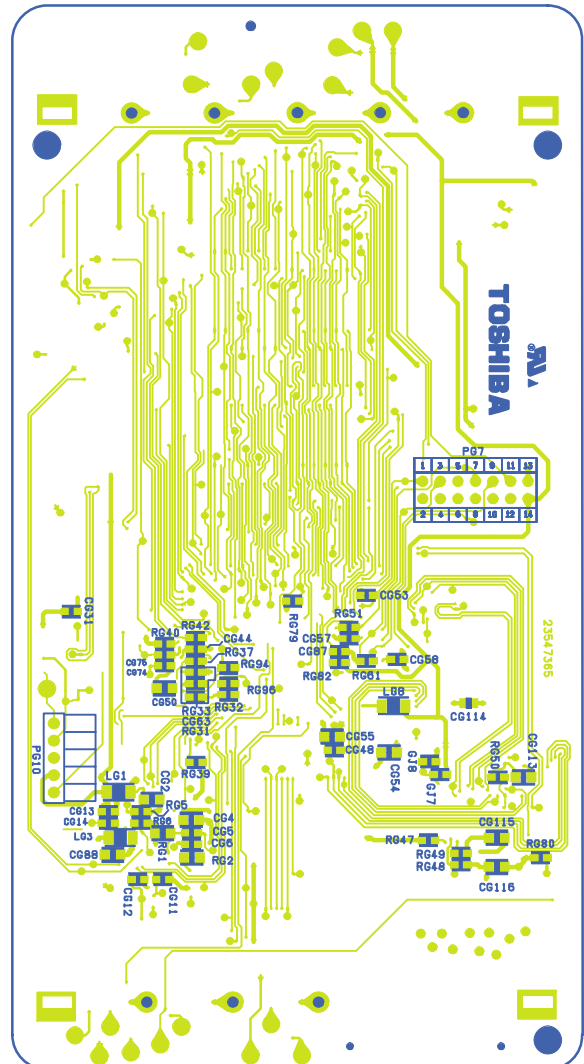
## GEMSTAR BOARD PD1283

TOP (FOIL) SIDE



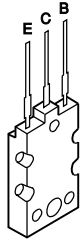
## GEMSTAR BOARD PD1283

BOTTOM (FOIL) SIDE

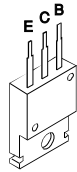


## TERMINAL VIEW OF TRANSISTORS

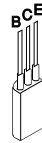
① 2SC5144  
2SC5859



② 2SC3852  
2SD1763A  
2SC1569  
2SC4544  
2SA1788  
2SA1306  
2SA1186A



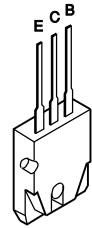
③ 2SC752GTM  
2SC2482  
2SC2655  
2SC4721P



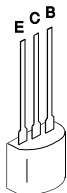
④ 2SC752  
2SA562TM  
2SA1015  
2SC1815  
2SC2878  
2SC1740S  
2SC2120  
2SA9335



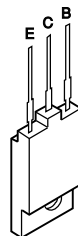
⑤ 2SA1788



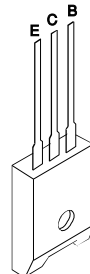
⑥ RN2203  
RN2201  
RN2004  
RN1203  
RN1204  
RN2204  
RN1205  
RN1202  
RN1201



⑦ 2SD1554  
2SD2253  
2SD1556  
2SD2553  
2SC5143



⑧ ON4409



**THIS PAGE IS  
INTENTIONALLY LEFT  
BLANK.**

# SCHEMATIC DIAGRAM

**MODEL : 51HX93/ 57HX93 / 65HX93**

**WARNING:** BEFORE SERVICING THIS CHASSIS, READ THE "X-RAY RADIATION PRECAUTION", "SAFETY PRECAUTION" AND "PRODUCT SAFETY NOTICE" ON THE MANUAL FOR THIS MODEL.

**CAUTION:** The international hazard symbols "△" in the schematic diagram and the parts list designate components which have special characteristics important for safety and should be replaced only with types identical to those in the original circuit or specified in the parts list. The mounting position of replacements is to be identical with originals. Before replacing any of these components, read carefully the PRODUCT SAFETY NOTICE on the MANUAL for this model. Do not degrade the safety of the receiver through improper servicing.

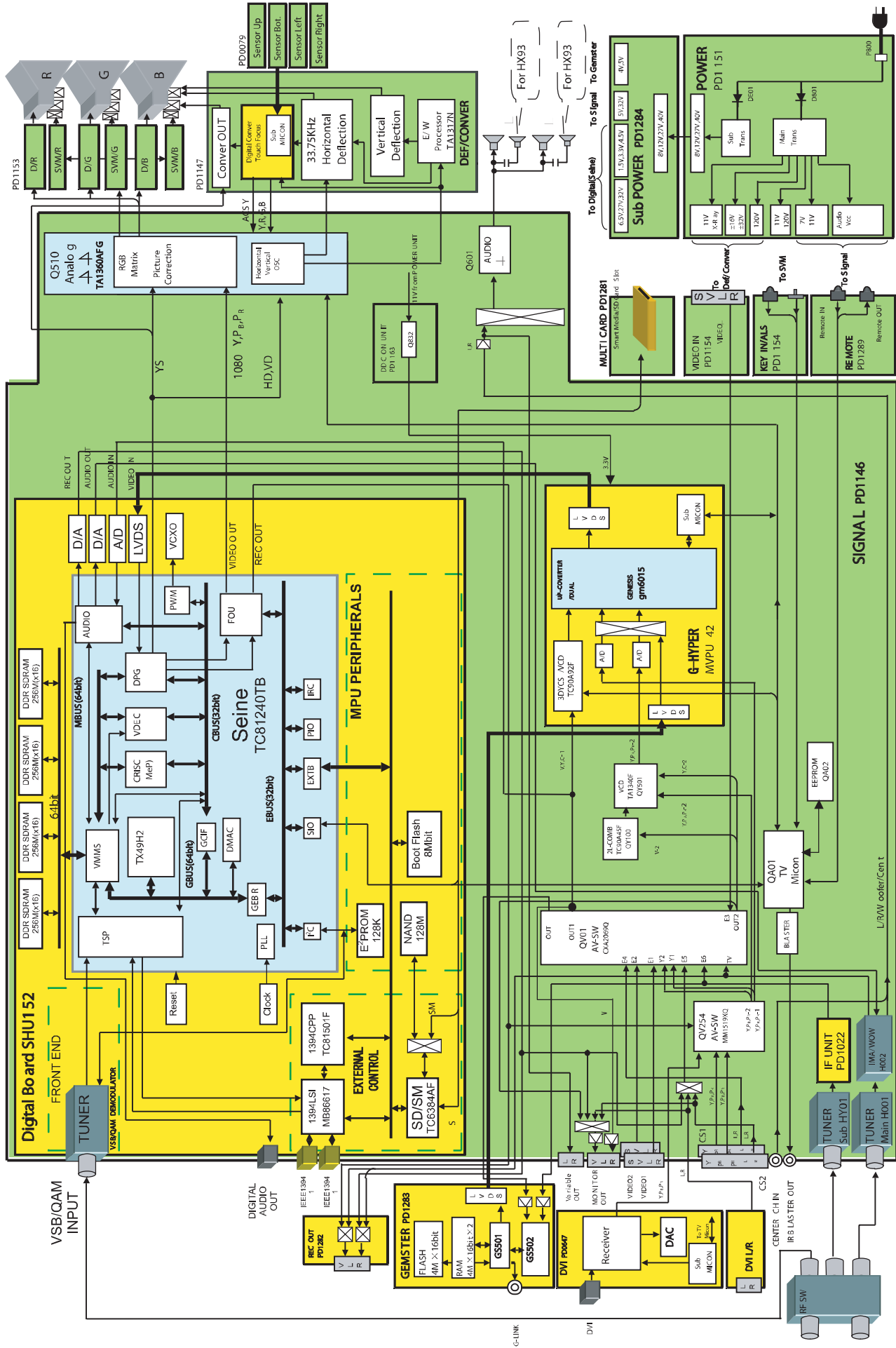
## NOTE:

- RESISTOR** Resistance is shown in ohm [K = 1.000, M = 1.000.000]. All resistors are 1/6W and 5% tolerance carbon resistor, unless otherwise noted as the following marks.  
 1/2R = Metal or Metal oxide of 1/2 watt      1/2S = Carbon composition of 1/2 watt  
 1RF = Fuse resistor of 1 watt      10W = Cement of 10 watt  
 K =  $\pm 10\%$     G =  $\pm 2\%$     F =  $\pm 1\%$
- CAPACITOR** Unless otherwise noted in schematic, all capacitor values less than 1 are expressed in  $\mu\text{F}$ , and the values more than 1 in pF.  
 All capacitors are ceramic 50V, unless otherwise noted as the following marks.  
 Electrolytic capacitor       Mylar capacitor
- The parts indicated with "△" have special characteristics, and should be replaced with identical parts only.
- Voltages read with DIGITAL MULTI-METER from point indicated to chassing ground, using a color bar signal with all controls at normal, line voltage 120 volts.
- Waveforms are taken receiving color bar signal with enough sensitivity.
- Voltage reading shown are nominal values and may vary  $\pm 20\%$  except H.V.

## ■ SCHEMATIC DIAGRAM STRUCTURE:

|                               |                    |                       |       |
|-------------------------------|--------------------|-----------------------|-------|
| SIGNAL Circuit                | Audio              | [ SHEET - 1/9 ] ..... | 1/25  |
|                               | AV-1               | [ SHEET - 2/9 ] ..... | 2/25  |
|                               | Maicon             | [ SHEET - 3/9 ] ..... | 3/25  |
|                               | REGULATOR          | [ SHEET - 4/9 ] ..... | 4/25  |
|                               | Video              | [ SHEET - 5/9 ] ..... | 5/25  |
|                               | AV-2               | [ SHEET - 6/9 ] ..... | 6/25  |
|                               | AV-3               | [ SHEET - 7/9 ] ..... | 7/25  |
|                               | IF                 | [ SHEET - 8/9 ] ..... | 8/25  |
|                               | SYNC OUT           | [ SHEET - 9/9 ] ..... | 9/25  |
| DEF / CONVER Circuit          | Vertical           | [ SHEET - 1/3 ] ..... | 10/25 |
|                               | DEF                | [ SHEET - 2/3 ] ..... | 11/25 |
|                               | CONVER-OUT         | [ SHEET - 3/3 ] ..... | 12/25 |
| POWER Circuit                 | ( 1/2 )            | [ SHEET - 1/2 ] ..... | 13/25 |
|                               | ( 2/2 )            | [ SHEET - 2/2 ] ..... | 14/25 |
| SUB-POWER Circuit .....       |                    |                       | 15/25 |
| IF Circuit .....              |                    |                       | 16/25 |
| DD-CON Circuit                | ( 1/2 )            | [ SHEET - 1/2 ] ..... | 17/25 |
|                               | CONVER-OUT ( 2/2 ) | [ SHEET - 2/2 ] ..... | 18/25 |
| CRT / SVM Circuit             | CRT-DRIVE          | [ SHEET - 1/2 ] ..... | 19/25 |
|                               | SVM                | [ SHEET - 2/2 ] ..... | 20/25 |
| FRONT Circuit .....           |                    |                       | 21/25 |
| IR BLASTER Circuit .....      |                    |                       | 22/25 |
| T. FOCUS-SENSOR Circuit ..... |                    |                       | 23/25 |
| REC OUT Circuit .....         |                    |                       | 24/25 |
| GEMSTAR Circuit .....         |                    |                       | 25/25 |

## CIRCUIT BLOCK DIAGRAM



| SPECIFICATIONS                                                 |                                                       |        |                          |
|----------------------------------------------------------------|-------------------------------------------------------|--------|--------------------------|
| Television System                                              | Dimensions                                            |        |                          |
|                                                                | 51HX93:                                               | Width  | 47-9/16 inches (1208 mm) |
| NTSC standard                                                  |                                                       | Height | 50-1/2 inches (1283 mm)  |
| ATSC standard (8VSB)                                           |                                                       | Depth  | 22 inches (559 mm)       |
| Digital Cable (64 QAM, 256 QAM; in-the-clear, un-encrypted)    | 57HX93:                                               | Width  | 52-3/4 inches (1340 mm)  |
| Channel Coverage                                               |                                                       | Height | 55-3/4 inches (1416 mm)  |
|                                                                |                                                       | Depth  | 23-9/16 inches (598 mm)  |
| VHF: 2 through 13                                              | 65HX93:                                               | Width  | 59-7/8 inches (1521 mm)  |
| UHF: 14 through 69                                             |                                                       | Height | 59-7/8 inches (1521 mm)  |
| Cable TV: Mid band (A-8 through A-1, A through I)              |                                                       | Depth  | 26 inches (660 mm)       |
| Super band (J through W)                                       | Mass                                                  |        |                          |
| Hyper band (AA through ZZ, AAA, BBB)                           |                                                       | 51H93: | 169 lbs (76.6 kg)        |
| Ultra band (65 through 94, 100 through 125)                    |                                                       | 57H93: | 204 lbs (92.5 kg)        |
|                                                                |                                                       | 65H93: | 240 lbs (109 kg)         |
| Power Source                                                   | Supplied Accessories                                  |        |                          |
| 120 V AC, 60 Hz                                                | Two dual-wand IR blaster cables                       |        |                          |
| Power Consumption                                              | RRemote control with two size "AA" alkaline batteries |        |                          |
| 210 W                                                          |                                                       |        |                          |
| Audio Power                                                    |                                                       |        |                          |
| 20 W + 20 W                                                    |                                                       |        |                          |
| Speaker Type                                                   |                                                       |        |                          |
| Two 6-5/16 inches (16 cm) round                                |                                                       |        |                          |
| Two 2-1/20 inches (5.2 cm) round (Tweeter)                     |                                                       |        |                          |
| Video/Audio Terminals                                          |                                                       |        |                          |
| S-VIDEO INPUT                                                  |                                                       |        |                          |
| Y :1 V(p-p), 75 ohm, negative sync.                            |                                                       |        |                          |
| C :0.286 V(p-p)(burst signal), 75 ohm                          |                                                       |        |                          |
| VIDEO/AUDIO INPUT                                              |                                                       |        |                          |
| VIDEO: 1 V(p-p), 75 ohm, negative sync.                        |                                                       |        |                          |
| AUDIO: 150 mV (rms)(30% modulation equivalent, 47 k ohm)       |                                                       |        |                          |
| ColorStream® (component video) INPUT                           |                                                       |        |                          |
| Y :1V(p-p), 75 ohm                                             |                                                       |        |                          |
| Pr:0.7 V(p-p), 75 ohm                                          |                                                       |        |                          |
| Pb:0.7 V(p-p), 75 ohm                                          |                                                       |        |                          |
| AUDIO:150 mV (rms), 47 k ohm                                   |                                                       |        |                          |
| Suggested scan rates: 1080i, 480p, 480i, 720p                  |                                                       |        |                          |
| VIDEO/AUDIO OUTPUT                                             |                                                       |        |                          |
| VIDEO: 1 V(p-p), 75 ohm, negative sync.                        |                                                       |        |                          |
| AUDIO: 150 mV(rms)(30% modulation equivalent, 4.7 k ohm)       |                                                       |        |                          |
| VARIABLE AUDIO OUTPUT                                          |                                                       |        |                          |
| 0-300 mV(rms)(30%modulation equivalent, 4.7 k ohm)             |                                                       |        |                          |
| REC (RECORD) OUT                                               |                                                       |        |                          |
| VIDEO: 1 V(p-p), 75 ohm, negative sync.                        |                                                       |        |                          |
| AUDIO: 200 mV(rms) (-20 dBFS, 4.7 k ohm)                       |                                                       |        |                          |
| (For ATSC, Digital Cable, IEEE-1394 sources only)              |                                                       |        |                          |
| AUDIO CENTER CHANNEL INPUT                                     |                                                       |        |                          |
| 300 mV(rms)(30% modulation equivalent, 10 k ohm)               |                                                       |        |                          |
| DVI/HDCP INPUT                                                 |                                                       |        |                          |
| HDCP compliant                                                 |                                                       |        |                          |
| E-EDID* 1.3 compliant                                          |                                                       |        |                          |
| DVI-D uncompressed, high-speed, digital single-link connection |                                                       |        |                          |
| Suggested scan rates:1080i, 480p, 480i, 720p                   |                                                       |        |                          |
| G-LINK and IR OUT: 3 V(p-p), 3.5mm mono socket                 |                                                       |        |                          |
| (IR blaster cables supplied)                                   |                                                       |        |                          |
| IEEE-1394 IN/OUT: IEEE-1394 compliant                          |                                                       |        |                          |

\* E-EDID = Enhanced-Extended Display Identification  
 Design and specifications are subject to change without notice.  
 Please refer to owner's manual in detail.

# **TOSHIBA CORPORATION**

1-1, SHIBAURA 1-CHOME, MINATO-KU, TOKYO 105-8001, JAPAN

# SCHEMATIC DIAGRAM

**MODEL : 51HX93 / 57HX93 / 65HX93**

**WARNING:** BEFORE SERVICING THIS CHASSIS, READ THE "X-RAY RADIATION PRECAUTION", "SAFETY PRECAUTION" AND "PRODUCT SAFETY NOTICE" ON THE MANUAL FOR THIS MODEL.

**CAUTION:** The international hazard symbols " $\triangle$ " in the schematic diagram and the parts list designate components which have special characteristics important for safety and should be replaced only with types identical to those in the original circuit or specified in the parts list. The mounting position of replacements is to be identical with originals. Before replacing any of these components, read carefully the PRODUCT SAFETY NOTICE on the MANUAL for this model. Do not degrade the safety of the receiver through improper servicing.

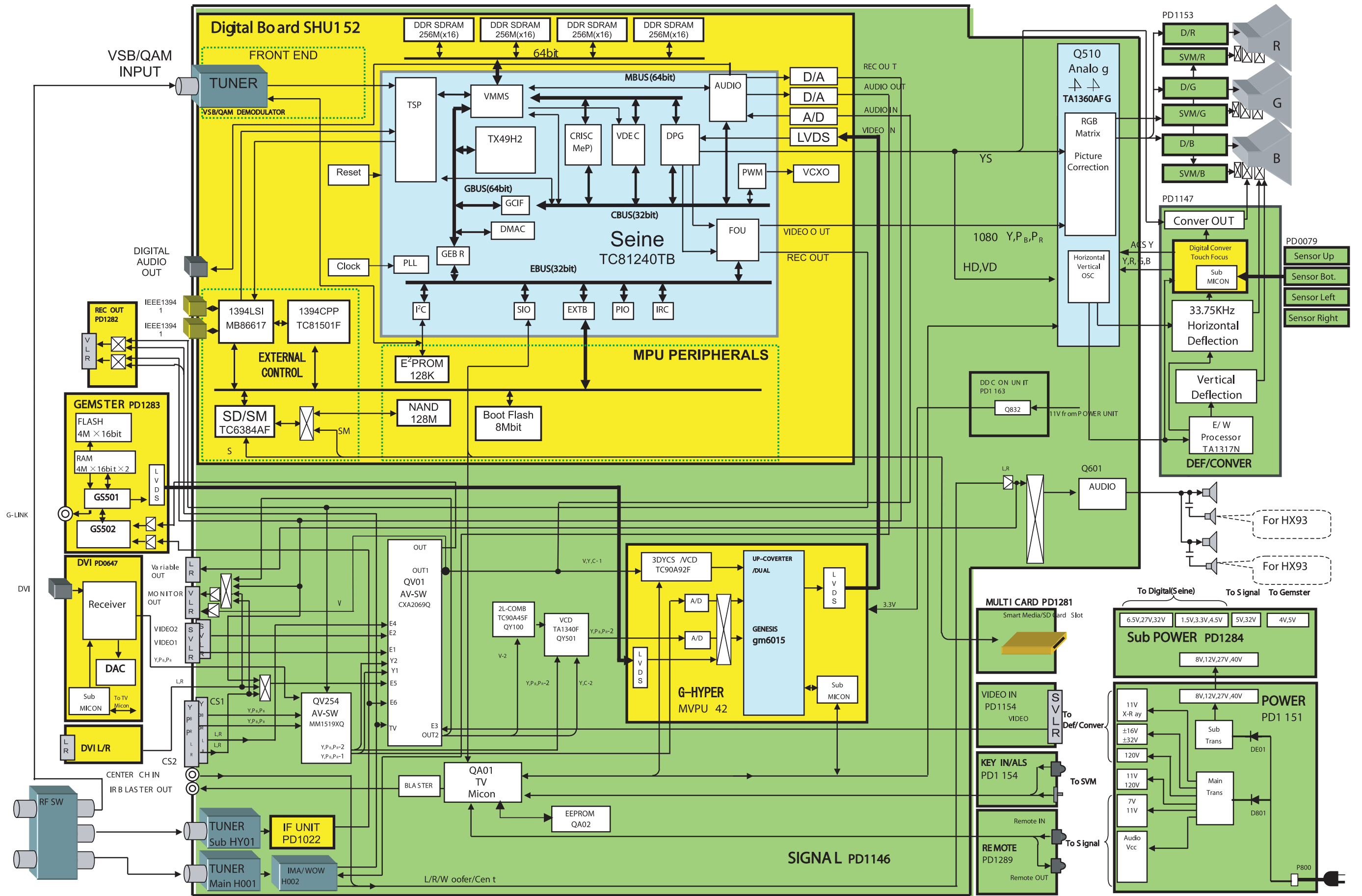
## NOTE:

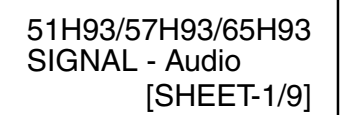
- RESISTOR** Resistance is shown in ohm [K = 1.000, M = 1.000.000]. All resistors are 1/6W and 5% tolerance carbon resistor, unless otherwise noted as the following marks.  
 1/2R = Metal or Metal oxide of 1/2 watt      1/2S = Carbon composition of 1/2 watt  
 1RF = Fuse resistor of 1 watt      10W = Cement of 10 watt  
 K =  $\pm 10\%$     G =  $\pm 2\%$     F =  $\pm 1\%$
- CAPACITOR** Unless otherwise noted in schematic, all capacitor values less than 1 are expressed in  $\mu$ F, and the values more than 1 in pF.  
 All capacitors are ceramic 50V, unless otherwise noted as the following marks.  
 $\text{---} \text{+} | \text{---}$  Electrolytic capacitor       $\text{---} \text{---} | \text{---}$  Mylar capacitor
- The parts indicated with "  $\triangle$  " have special characteristics, and should be replaced with identical parts only.
- Voltages read with DIGITAL MULTI-METER from point indicated to chassing ground, using a color bar signal with all controls at normal, line voltage 120 volts.
- Waveforms are taken receiving color bar signal with enough sensitivity.
- Voltage reading shown are nominal values and may vary  $\pm 20\%$  except H.V.

## SCHEMATIC DIAGRAM STRUCTURE:

|                         |                    |                 |       |
|-------------------------|--------------------|-----------------|-------|
| SIGNAL Circuit          | Audio              | [ SHEET - 1/9 ] | 1/25  |
|                         | AV-1               | [ SHEET - 2/9 ] | 2/25  |
|                         | Maicon             | [ SHEET - 3/9 ] | 3/25  |
|                         | REGULATOR          | [ SHEET - 4/9 ] | 4/25  |
|                         | Video              | [ SHEET - 5/9 ] | 5/25  |
|                         | AV-2               | [ SHEET - 6/9 ] | 6/25  |
|                         | AV-3               | [ SHEET - 7/9 ] | 7/25  |
|                         | IF                 | [ SHEET - 8/9 ] | 8/25  |
|                         | SYNC OUT           | [ SHEET - 9/9 ] | 9/25  |
| DEF / CONVER Circuit    | Vertical           | [ SHEET - 1/3 ] | 10/25 |
|                         | DEF                | [ SHEET - 2/3 ] | 11/25 |
|                         | CONVER-OUT         | [ SHEET - 3/3 ] | 12/25 |
| POWER Circuit           | ( 1/2 )            | [ SHEET - 1/2 ] | 13/25 |
|                         | ( 2/2 )            | [ SHEET - 2/2 ] | 14/25 |
| SUB-POWER Circuit       |                    |                 | 15/25 |
| IF Circuit              |                    |                 | 16/25 |
| DD-CON Circuit          | ( 1/2 )            | [ SHEET - 1/2 ] | 17/25 |
|                         | CONVER-OUT ( 2/2 ) | [ SHEET - 2/2 ] | 18/25 |
| CRT / SVM Circuit       | CRT-DRIVE          | [ SHEET - 1/2 ] | 19/25 |
|                         | SVM                | [ SHEET - 2/2 ] | 20/25 |
| FRONT Circuit           |                    |                 | 21/25 |
| IR BLASTER Circuit      |                    |                 | 22/25 |
| T. FOCUS-SENSOR Circuit |                    |                 | 23/25 |
| REC OUT Circuit         |                    |                 | 24/25 |
| GEMSTAR Circuit         |                    |                 | 25/25 |

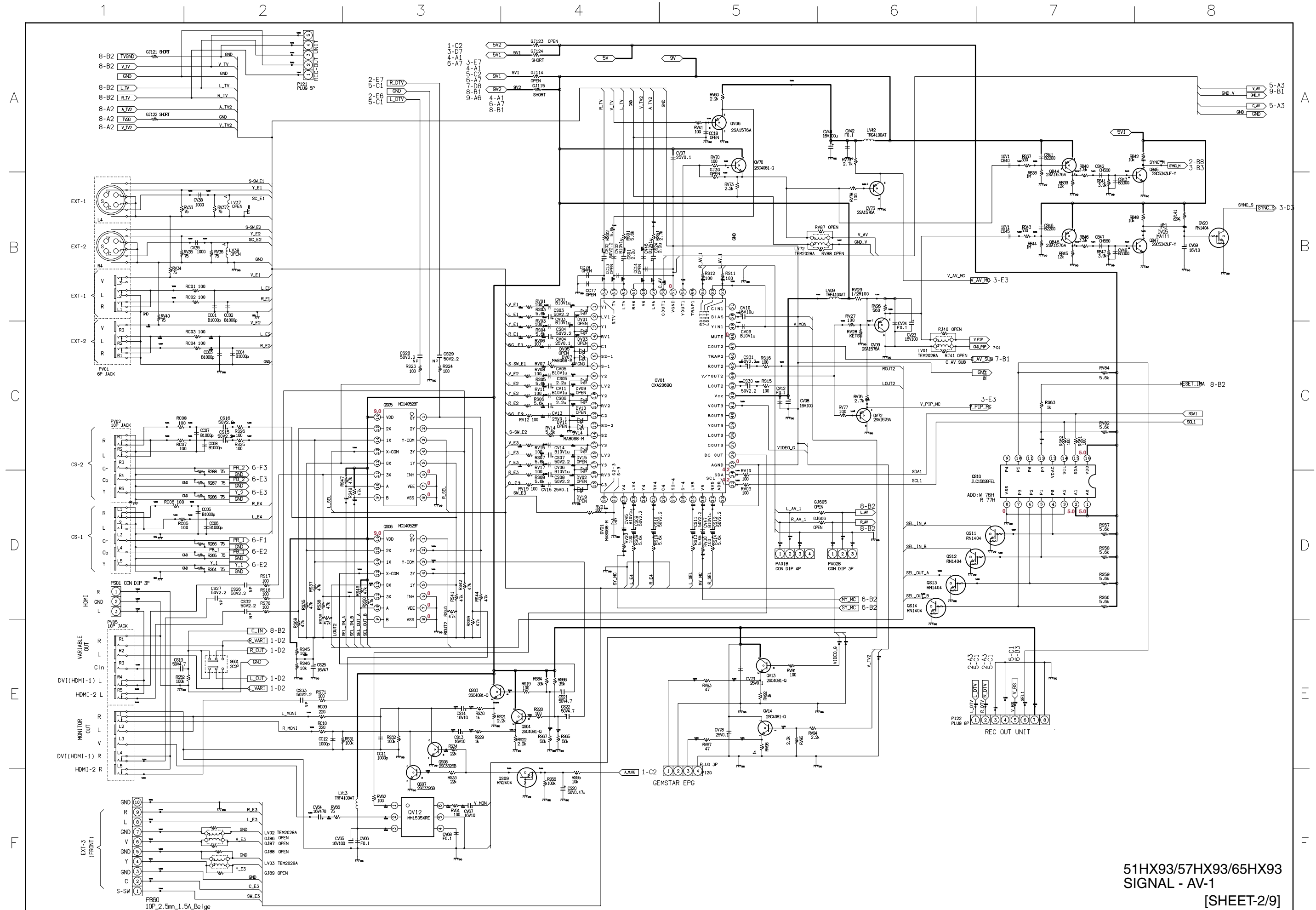
# CIRCUIT BLOCK DIAGRAM

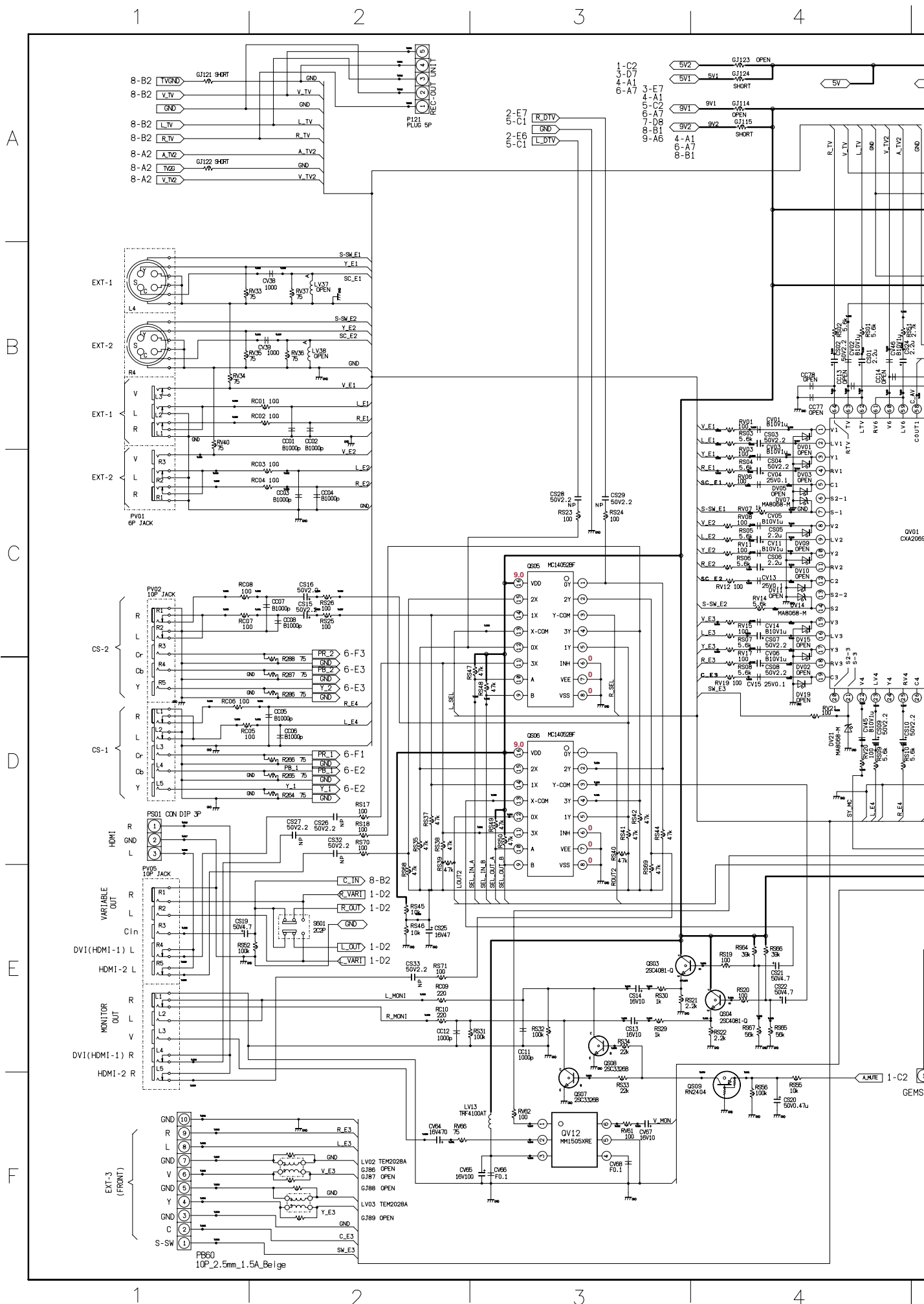


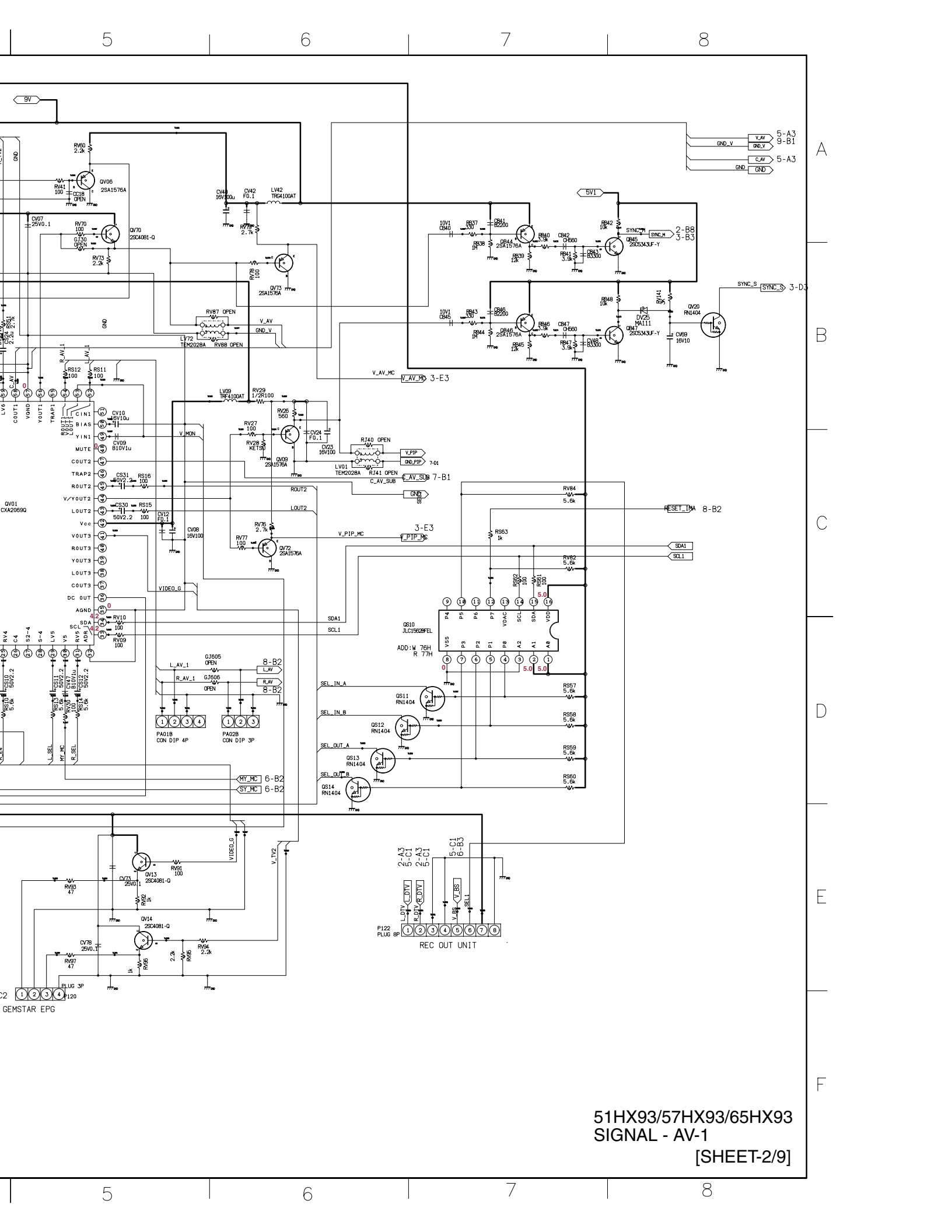


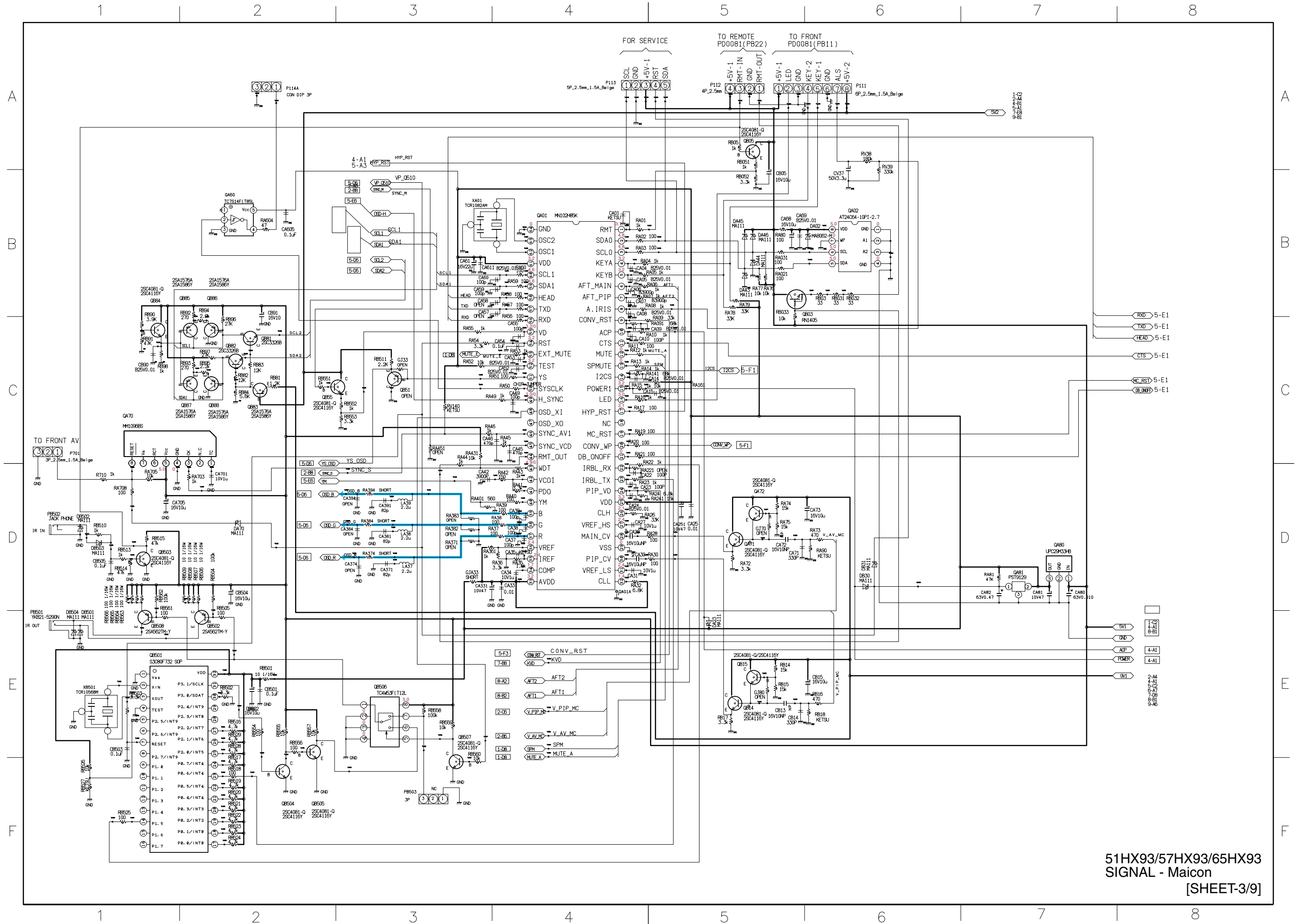




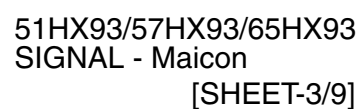


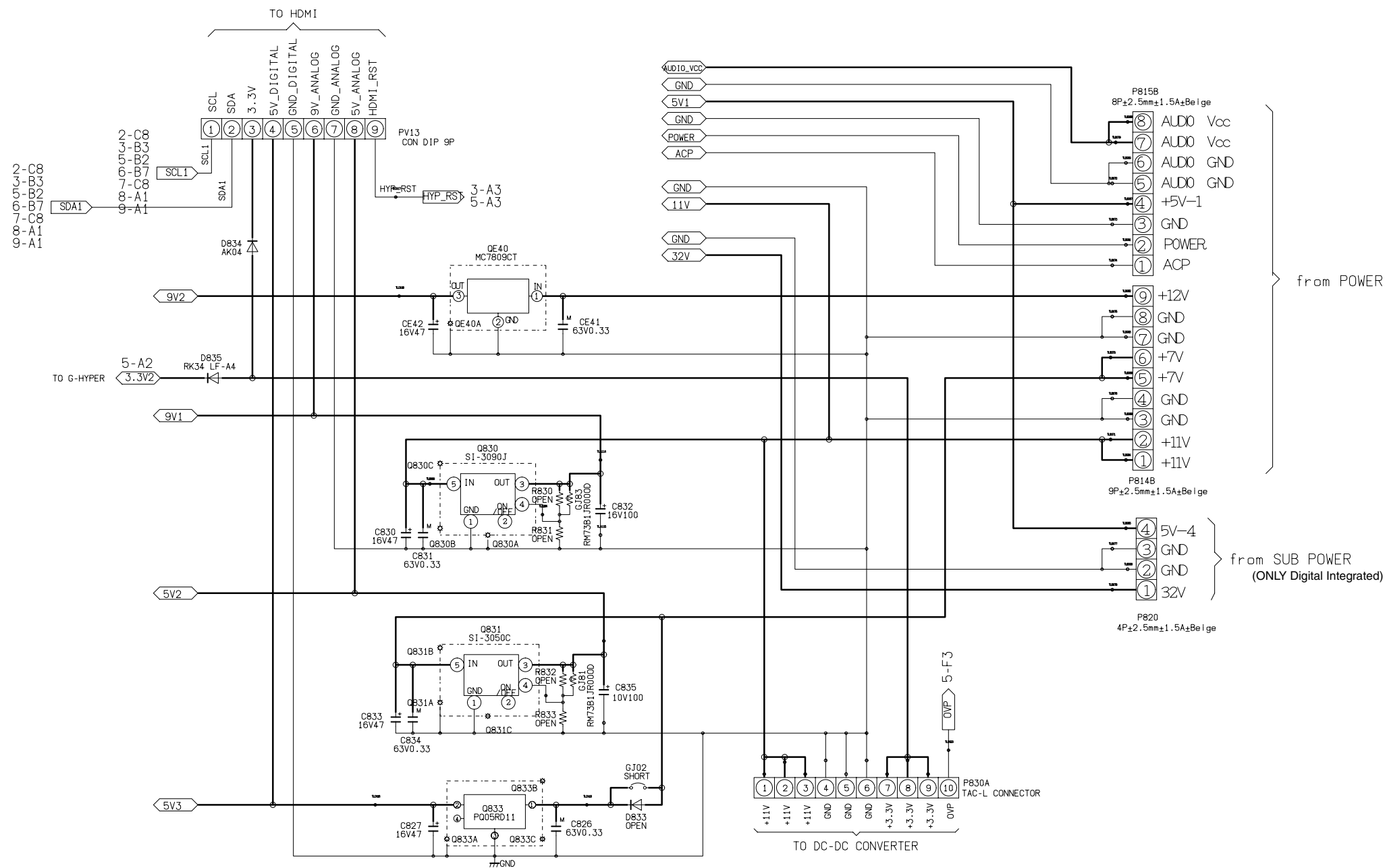






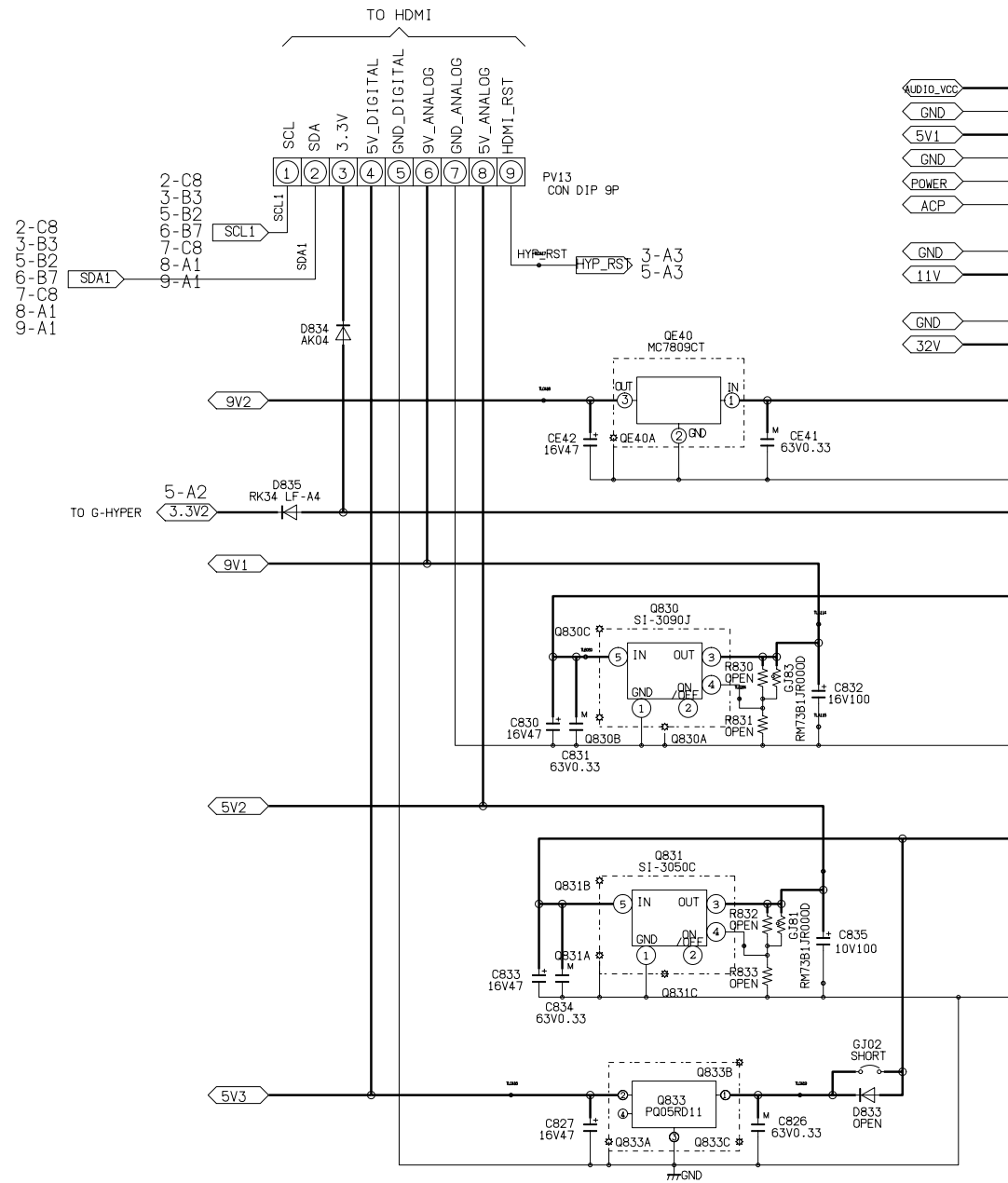


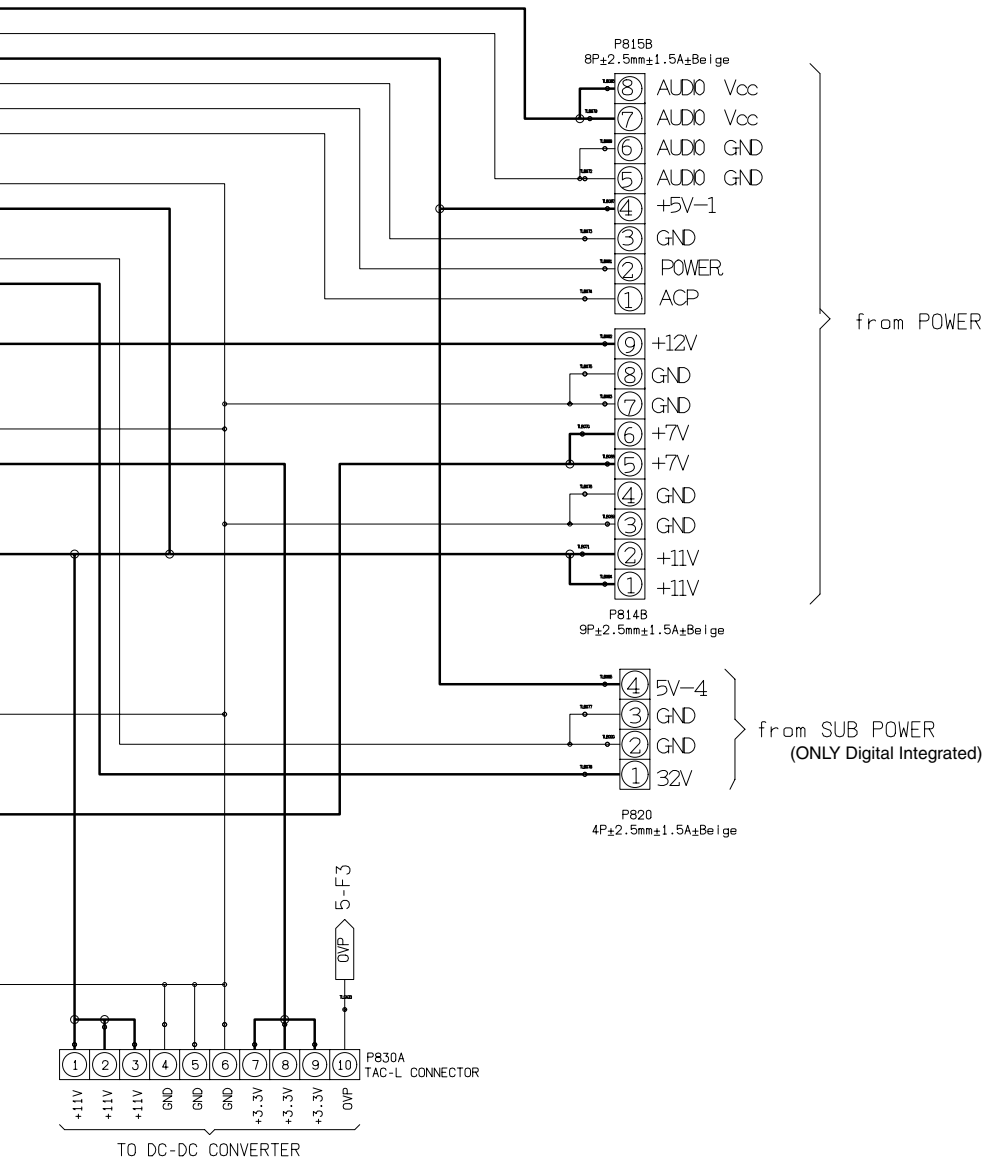




A

B





A

B

51HX93/57HX93/65HX93  
SIGNAL - REGULATOR  
[SHEET-4/9]

A

B

C

D

E

F

A

B

C

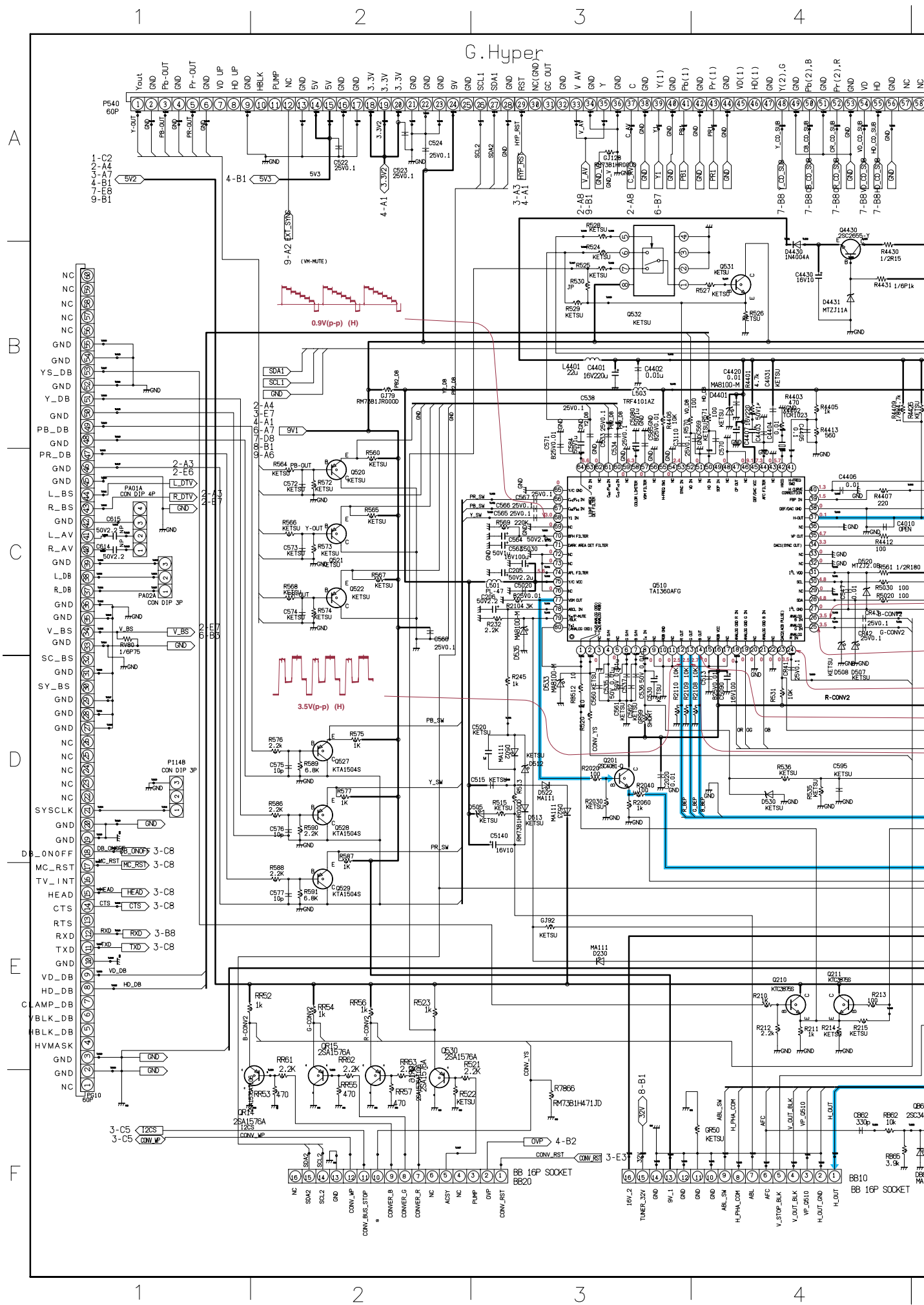
D

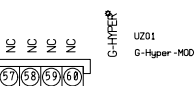
E

F

G.Hyper

U201  
G-Hyper-MOD

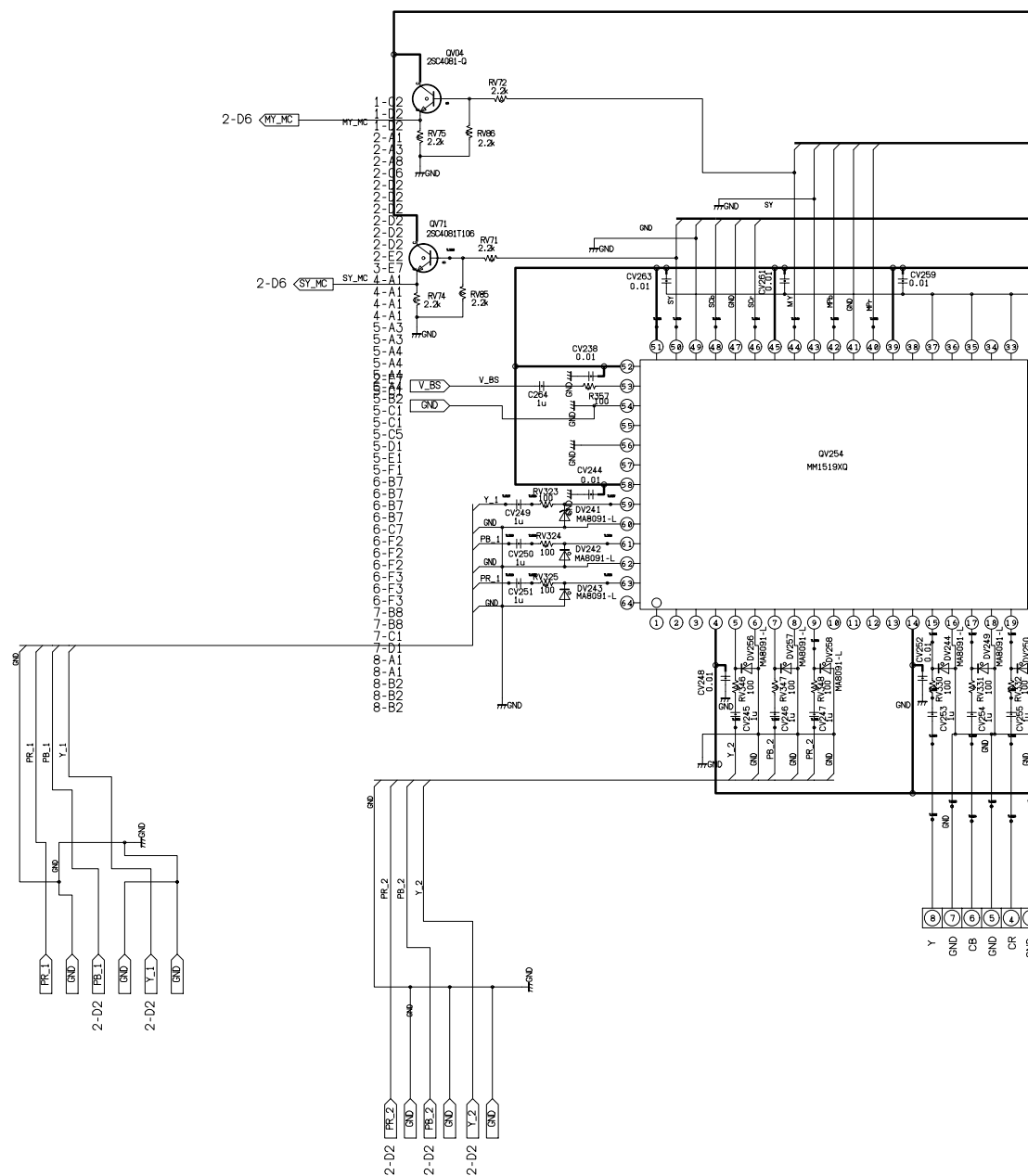






F

4



4



A

B

C

D

E

F

A

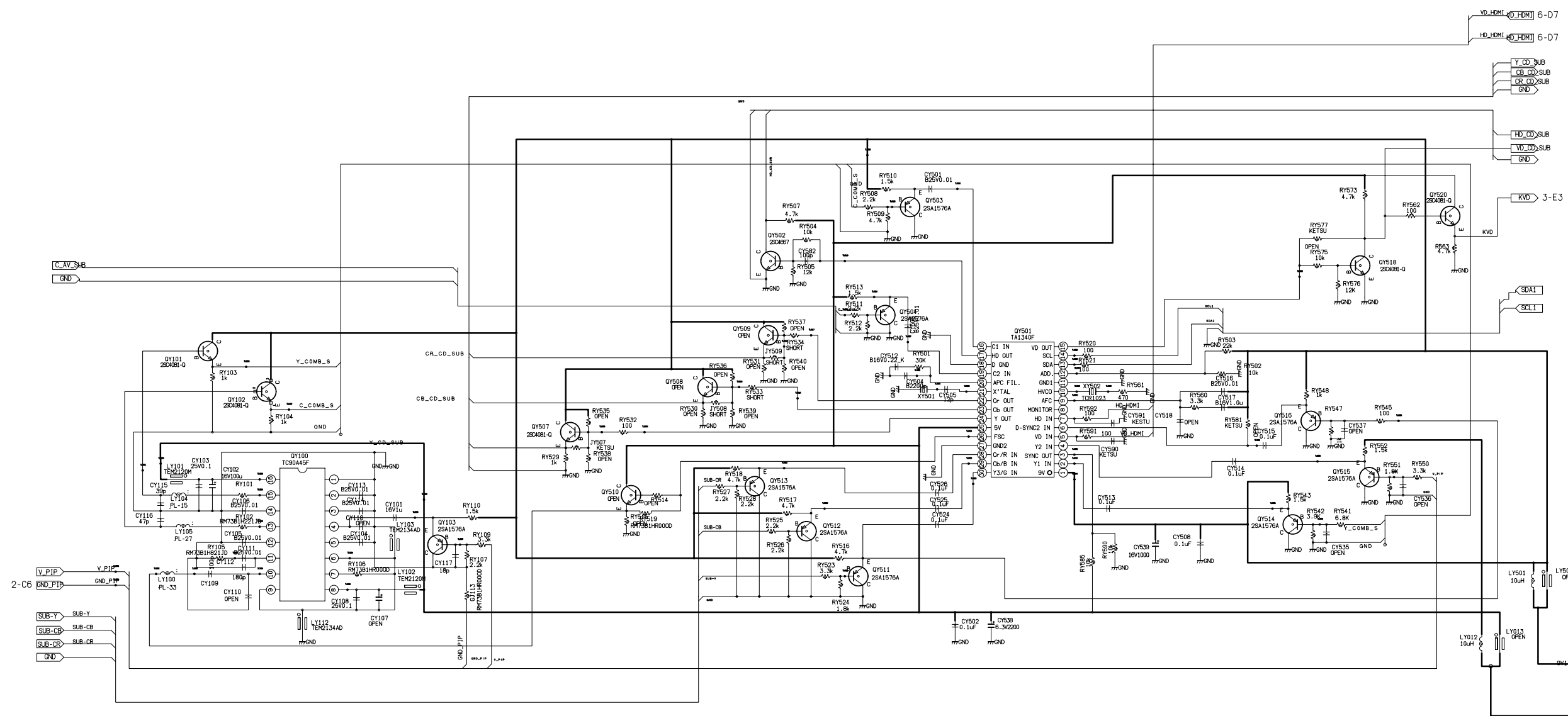
B

C

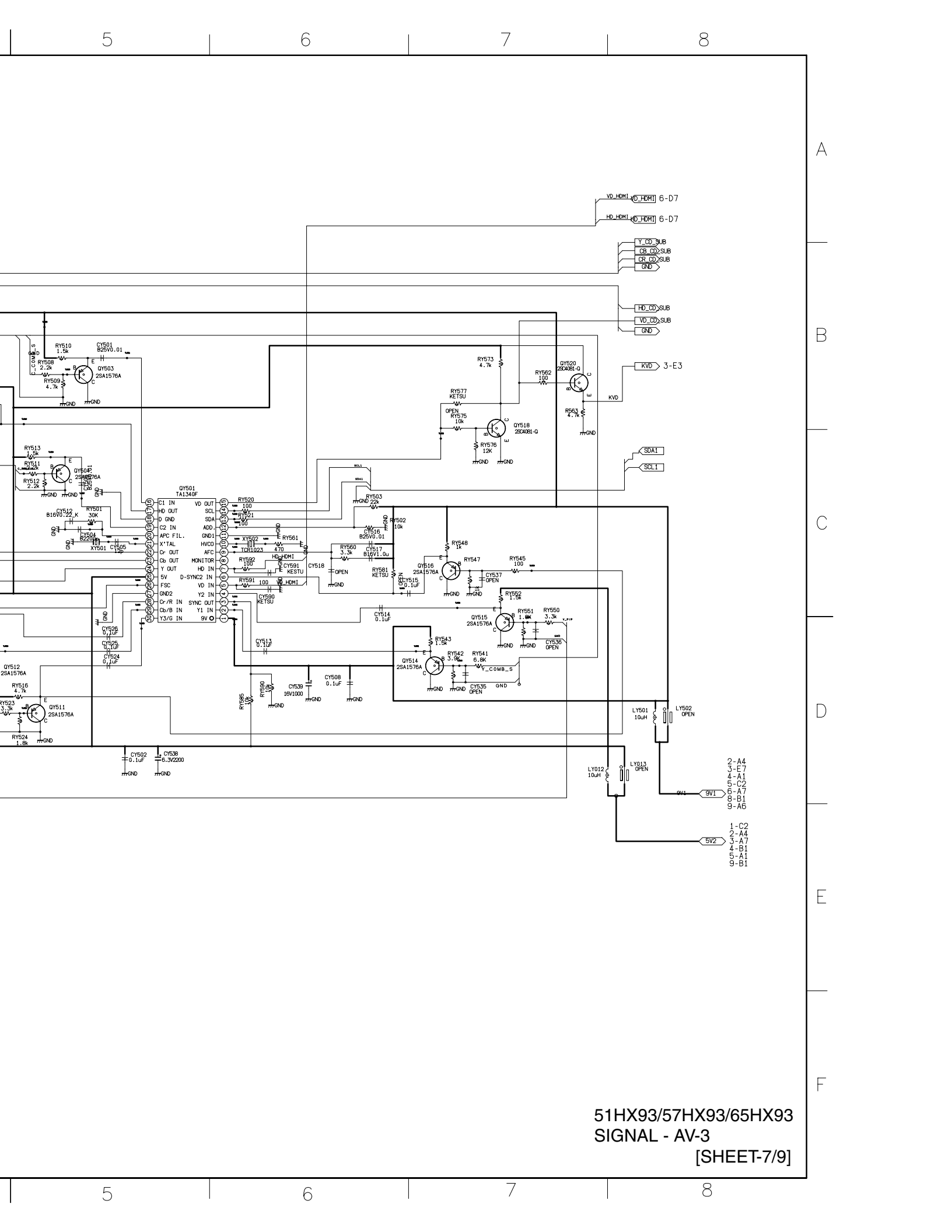
D

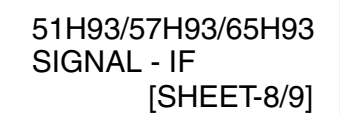
E

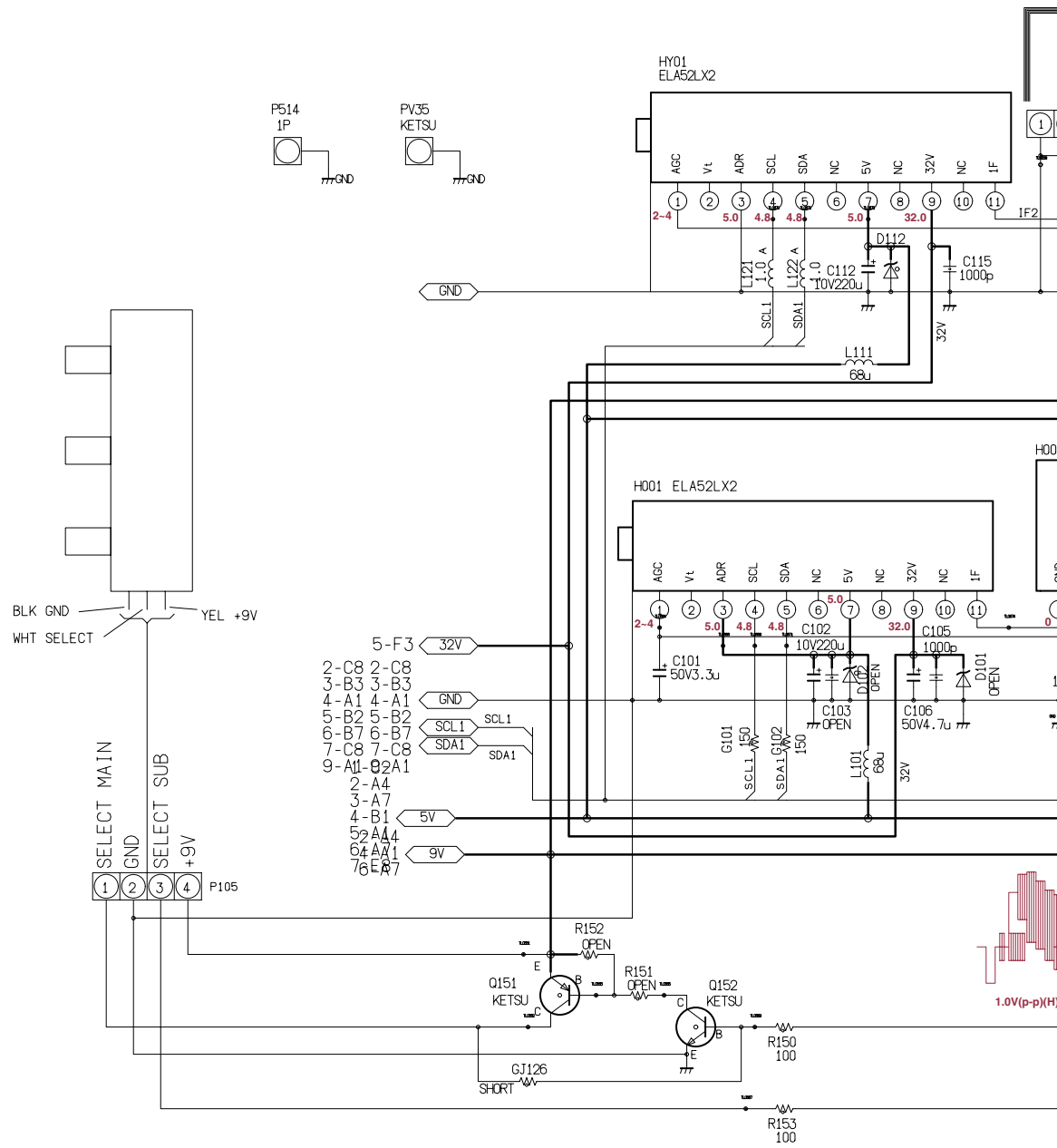
F

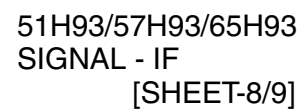


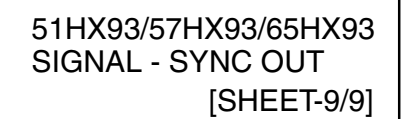




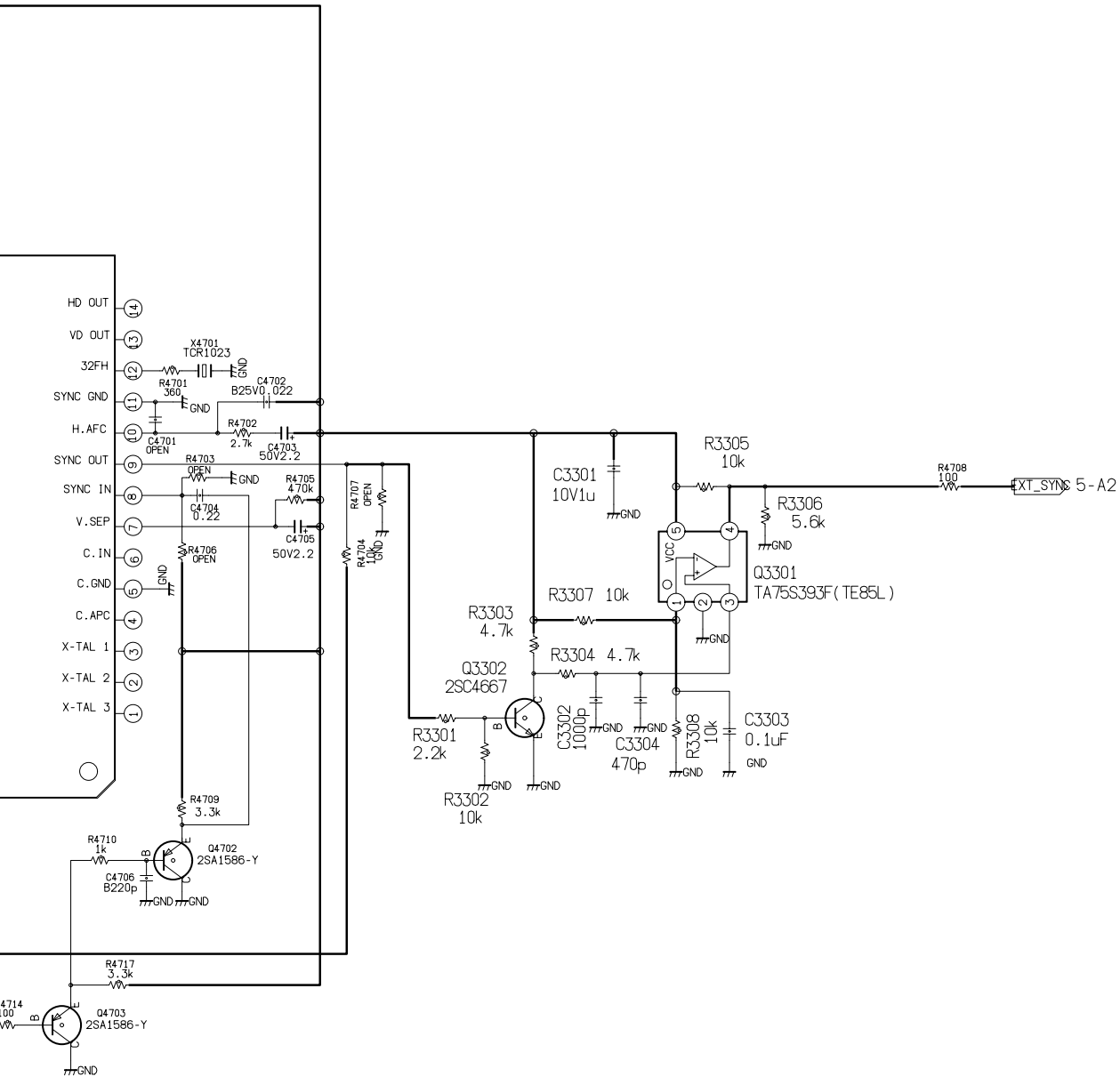




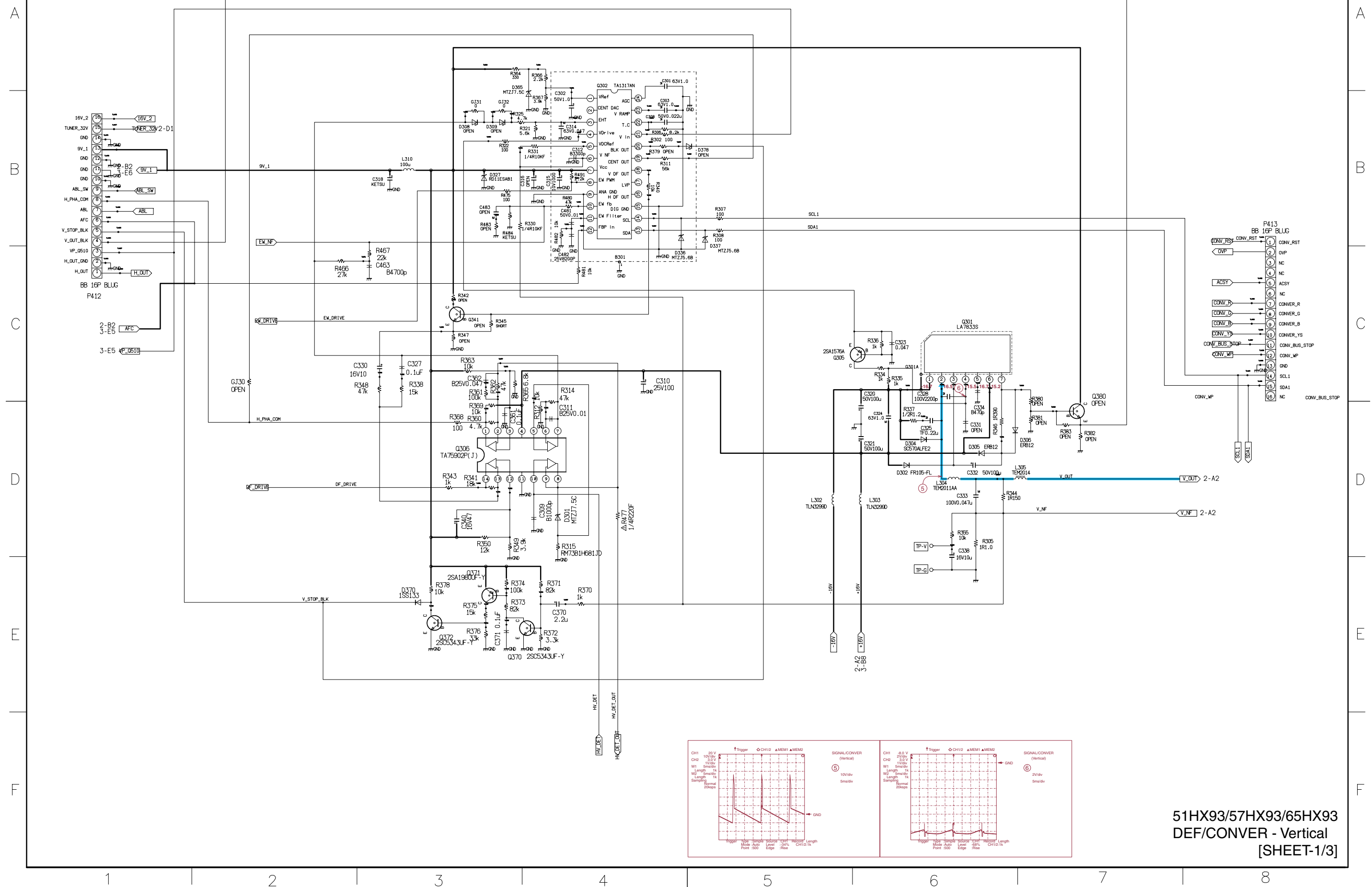








51HX93/57HX93/65HX93  
 SIGNAL - SYNC OUT  
 [SHEET-9/9]



A

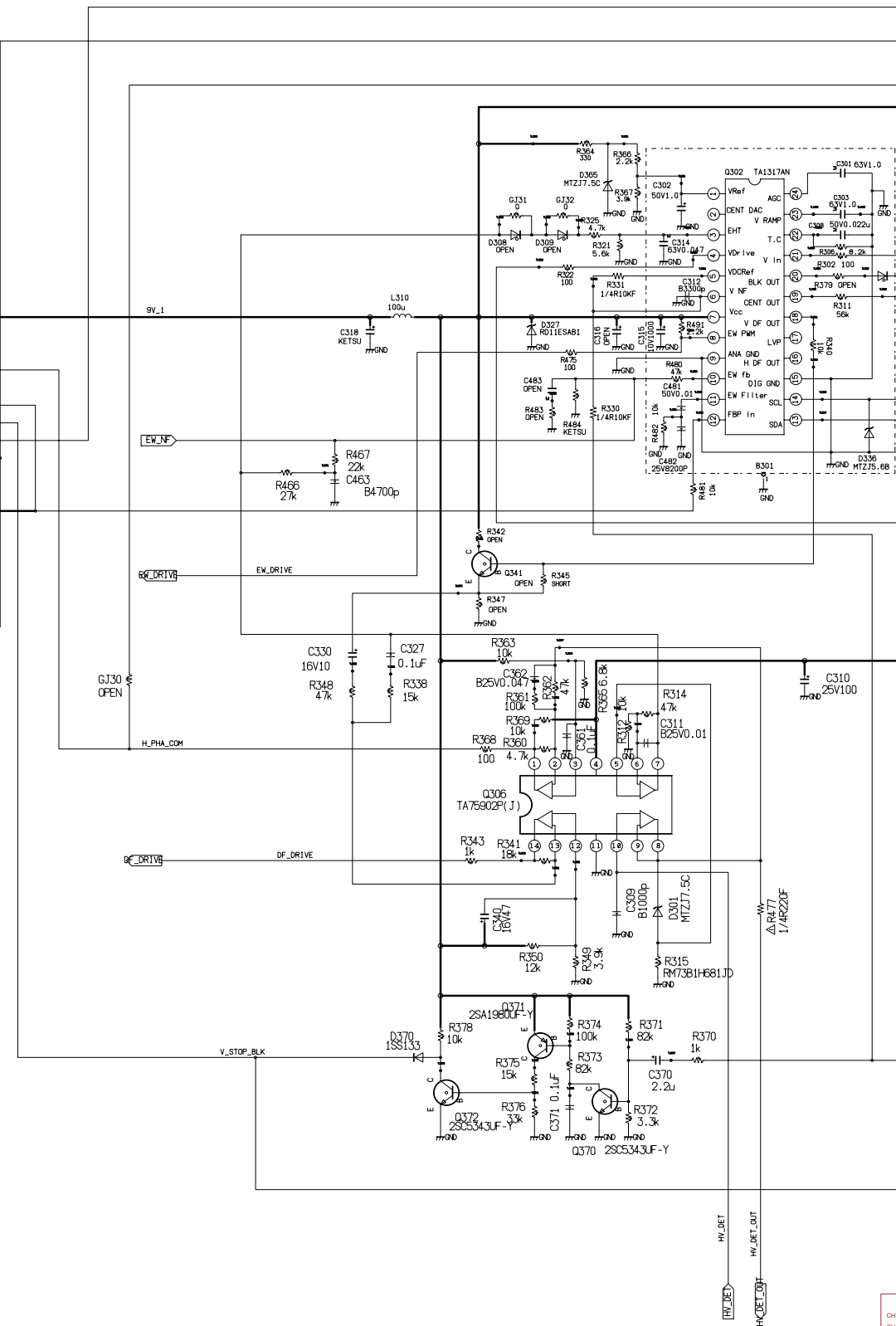
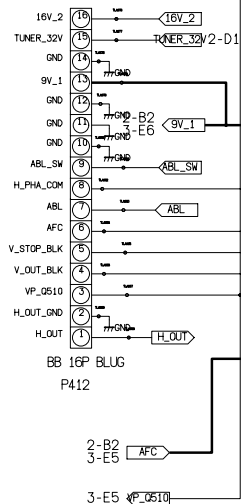
B

C

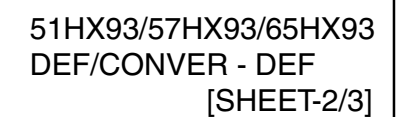
D

E

F







5P\_2.5mm\_1.5A\_Belge  
P404

A

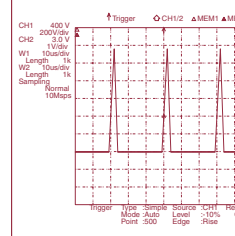
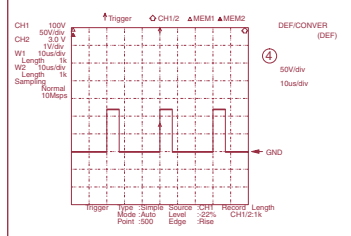
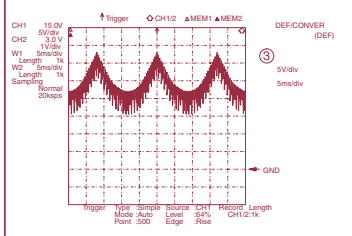
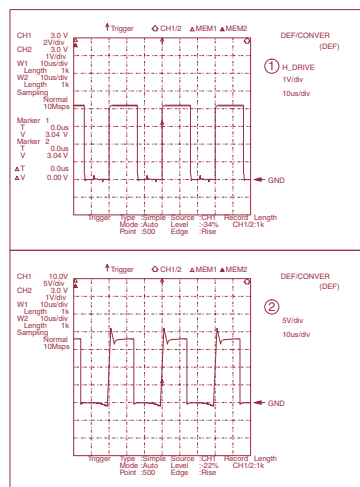
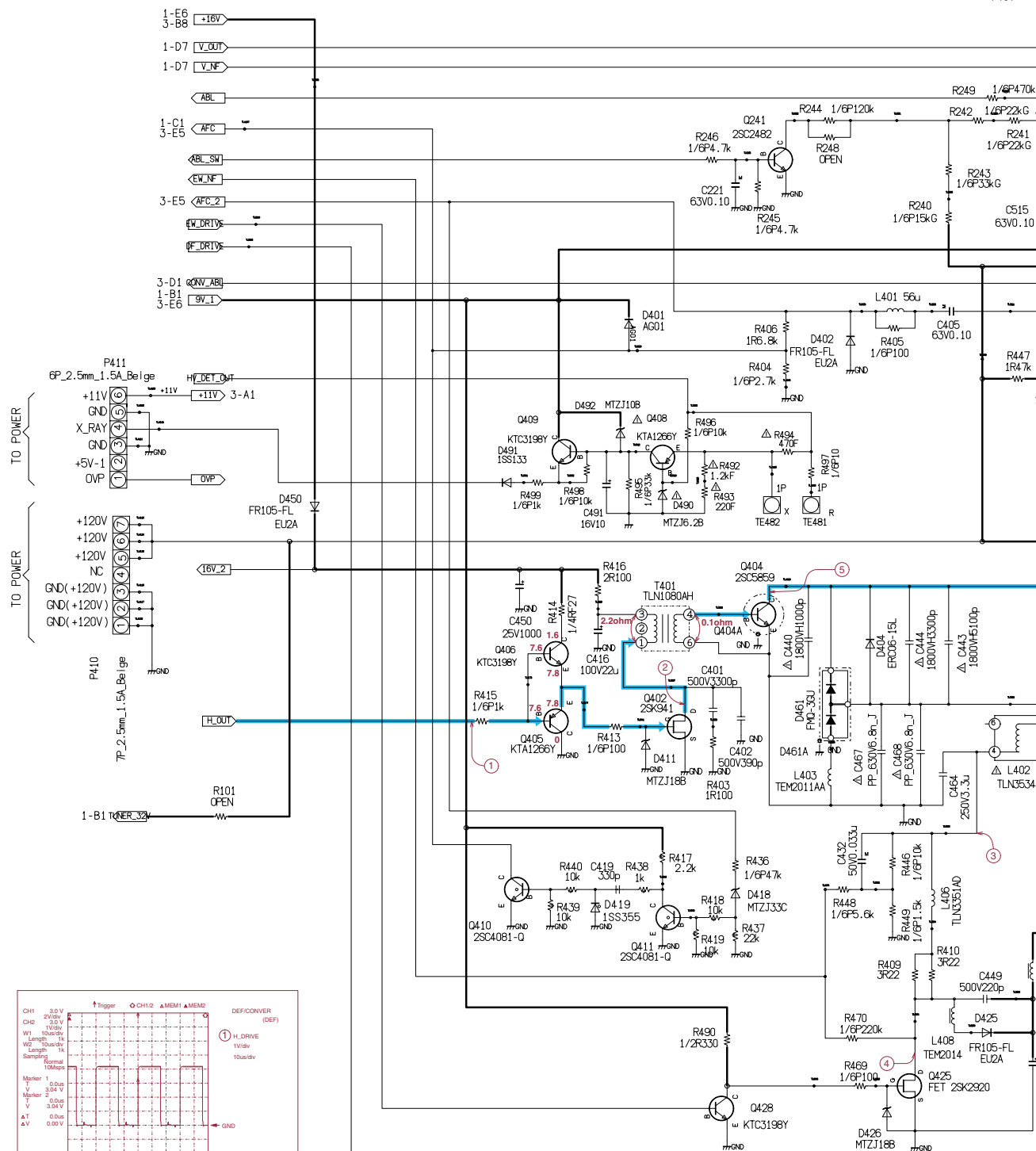
B

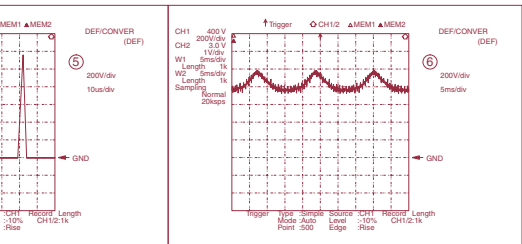
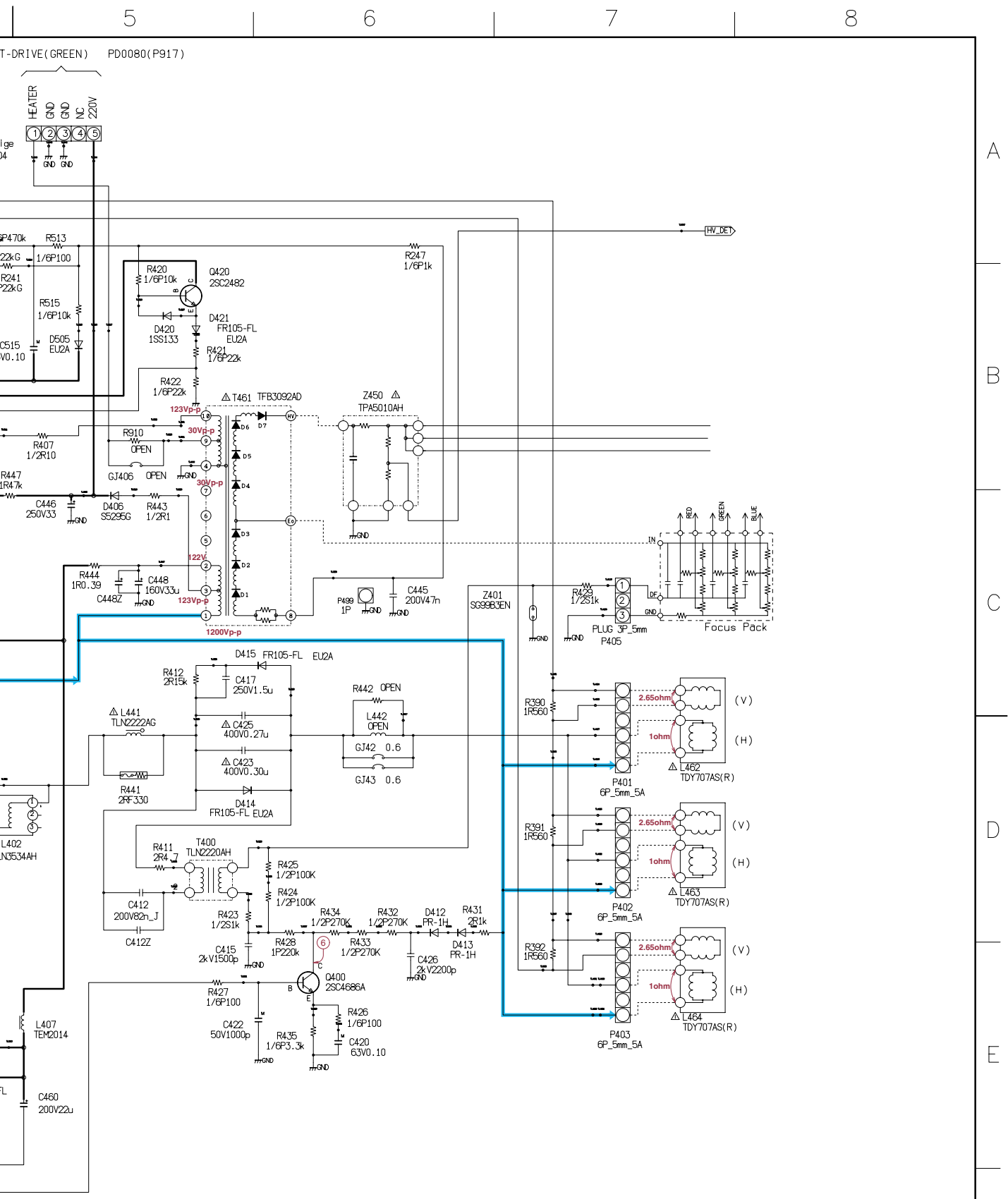
C

D

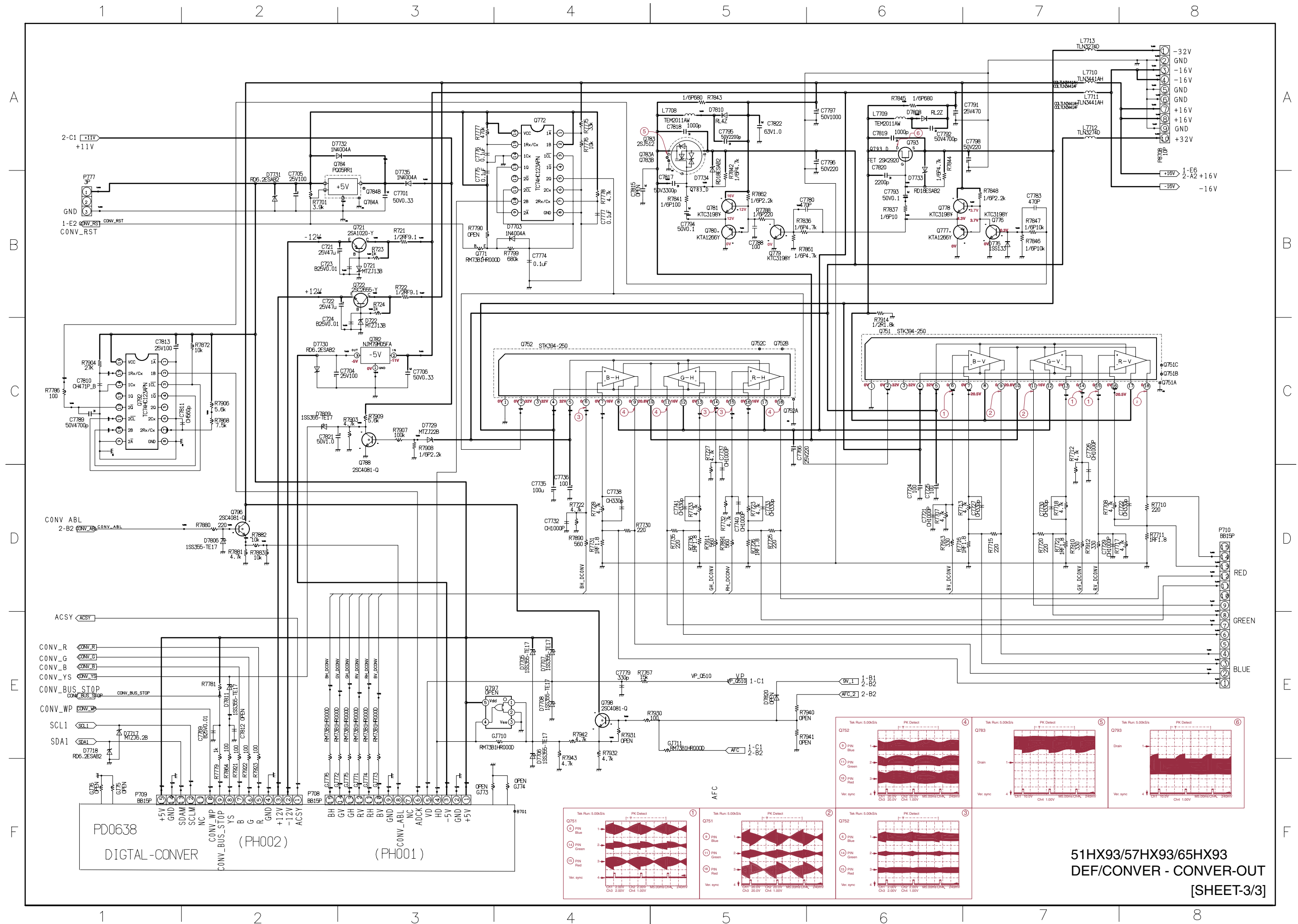
E

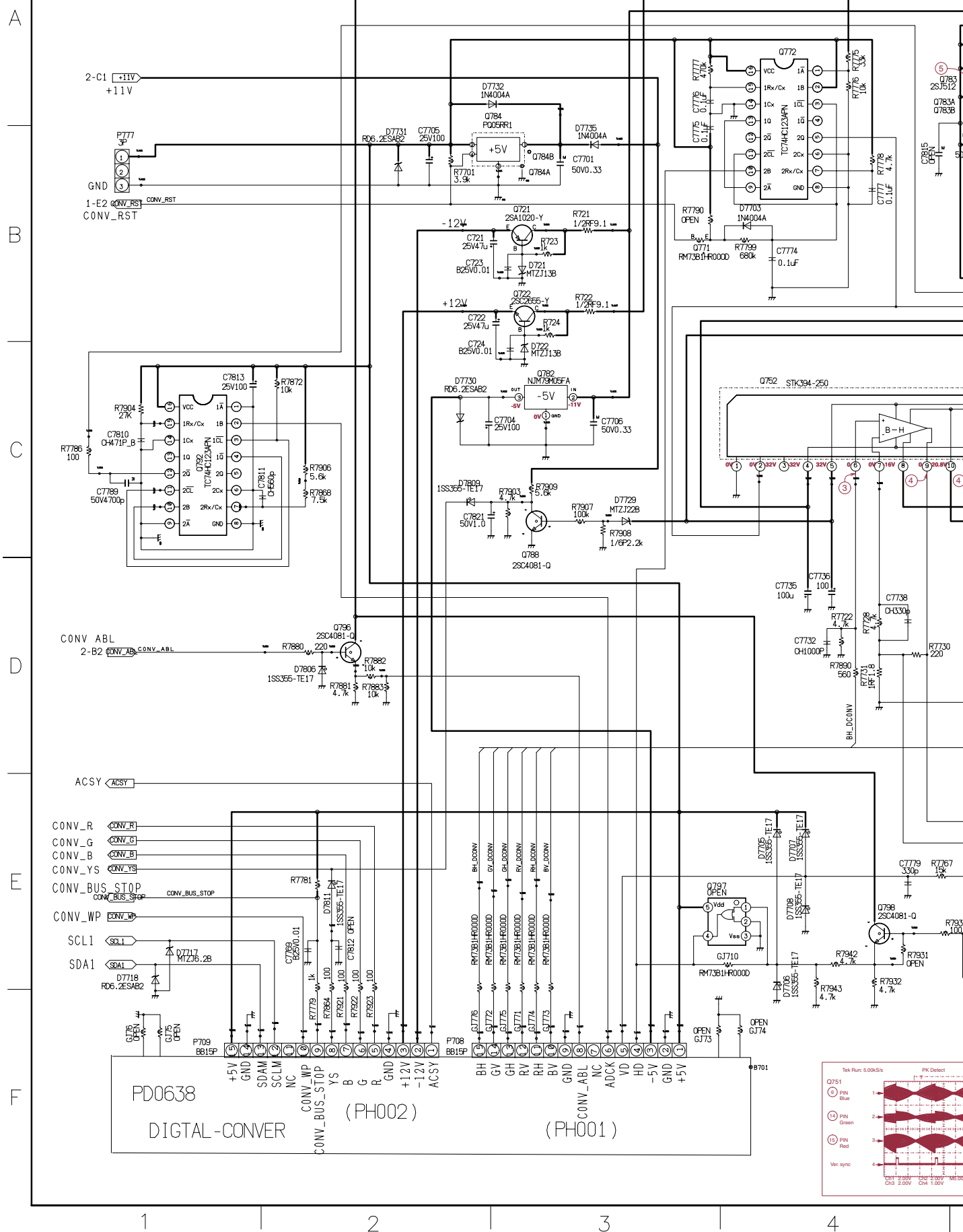
F

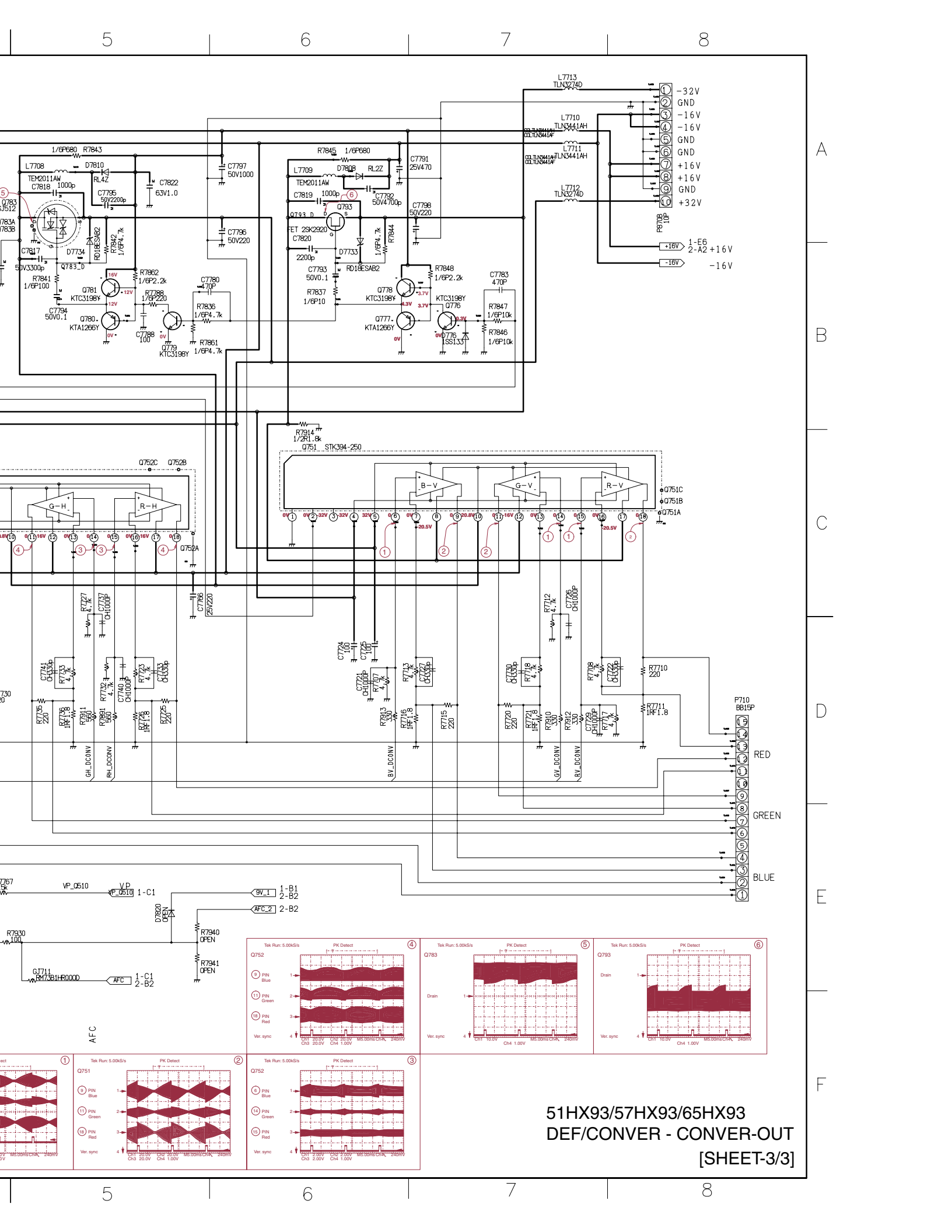




51HX93/57HX93/65HX93  
DEF/CONVER - DEF  
[SHEET-2/3]

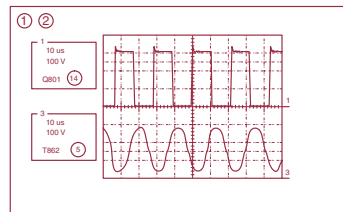
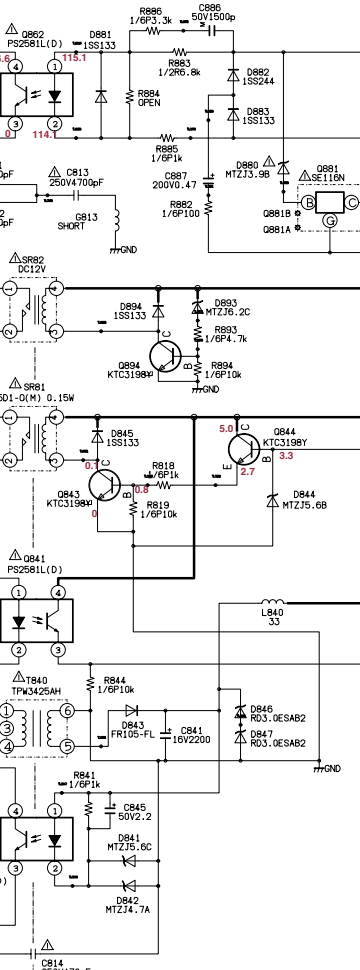
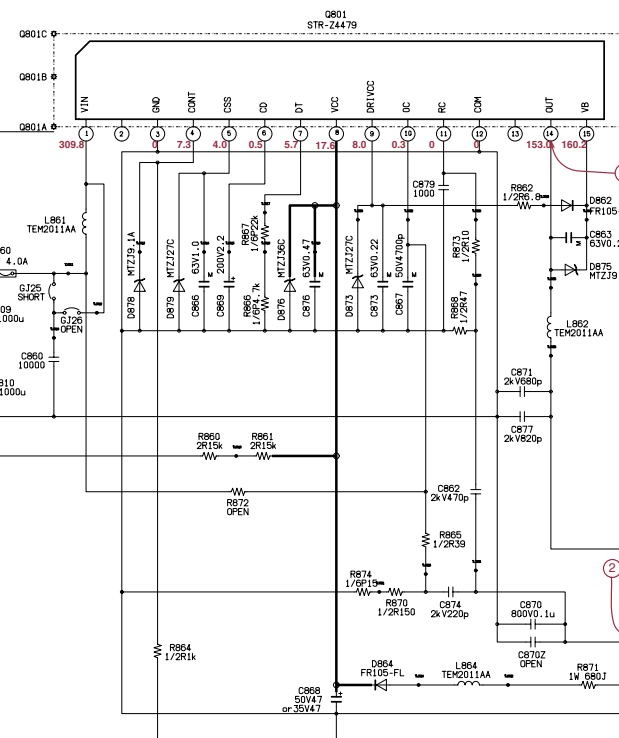
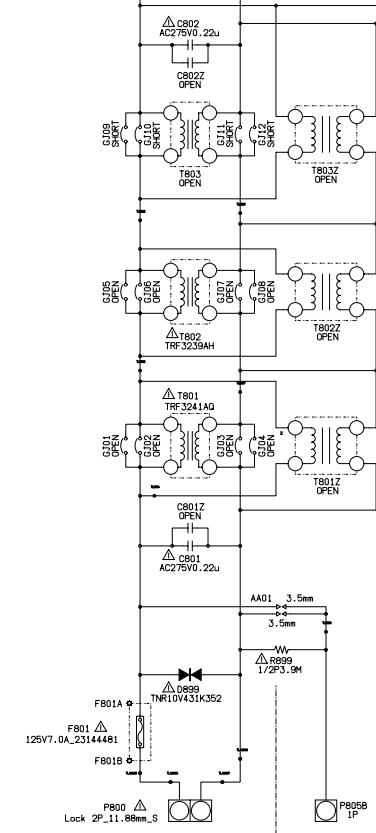






LIVE AREA

2-B3 AC-  
2-B3 AC+



51HX93/57HX93/65HX93  
POWER - (1/2)  
[SHEET-1/2]

LIVE AREA

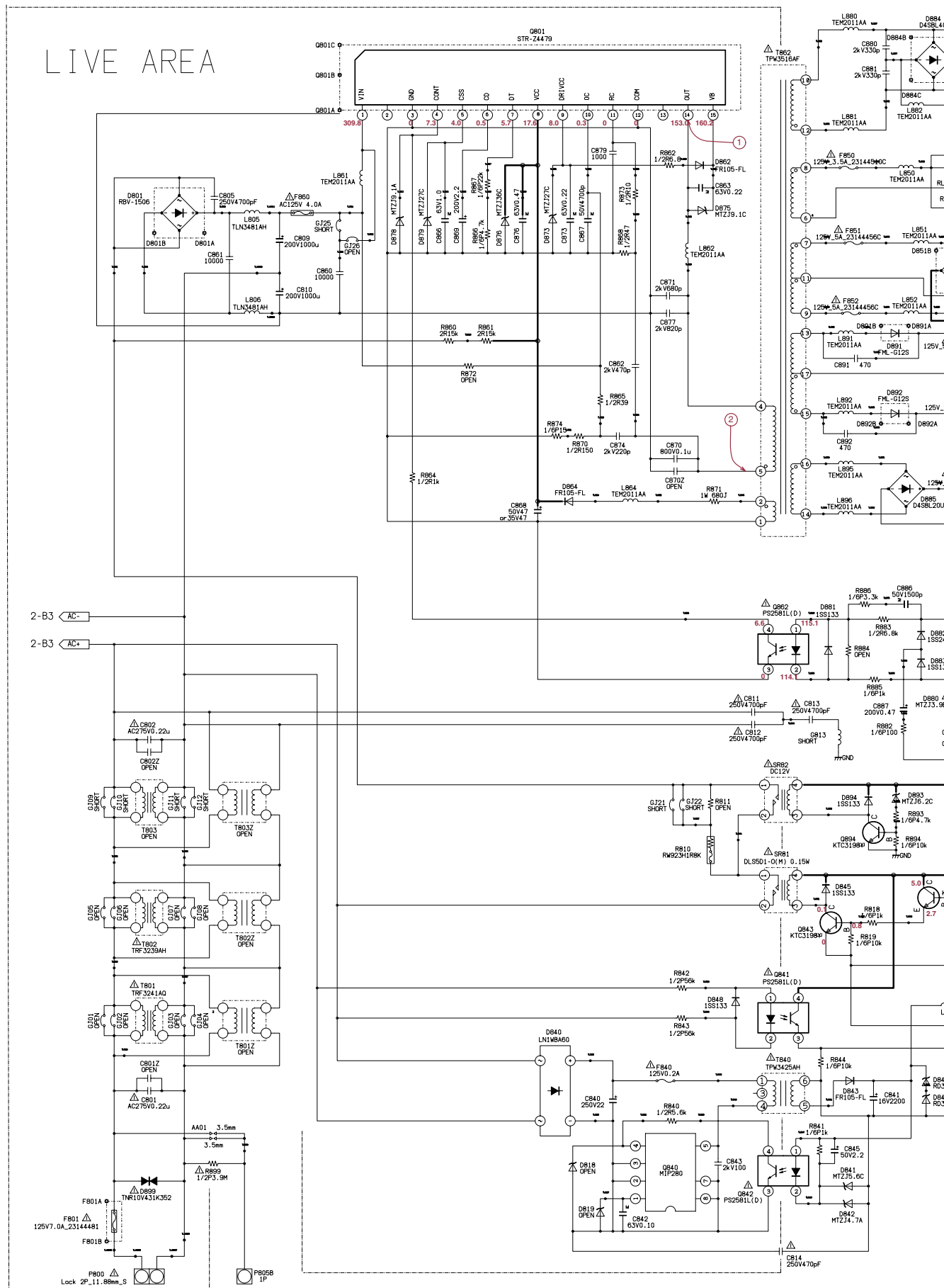
B

C

D

E

F

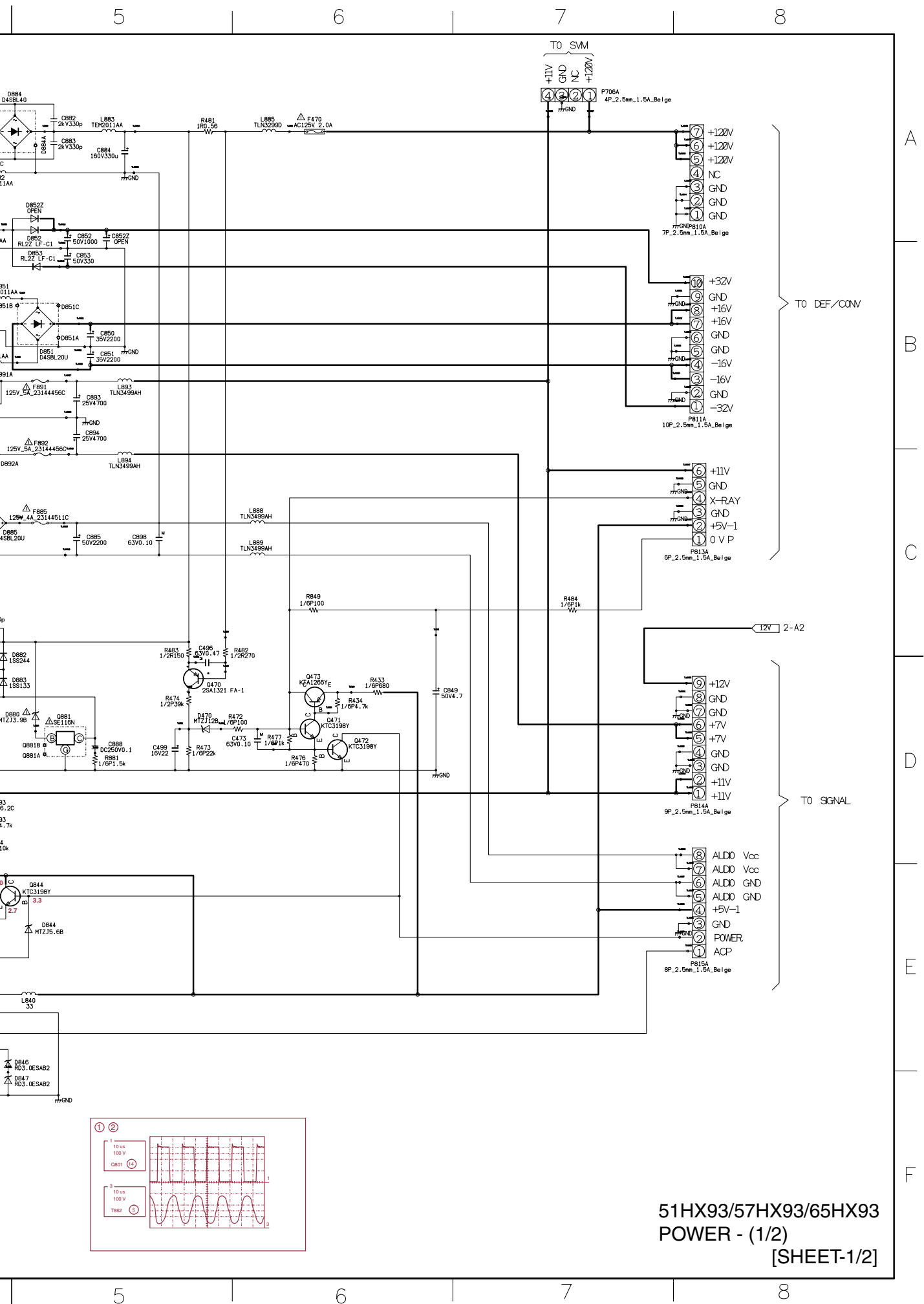
2-B3 2-B3 

1

2

3

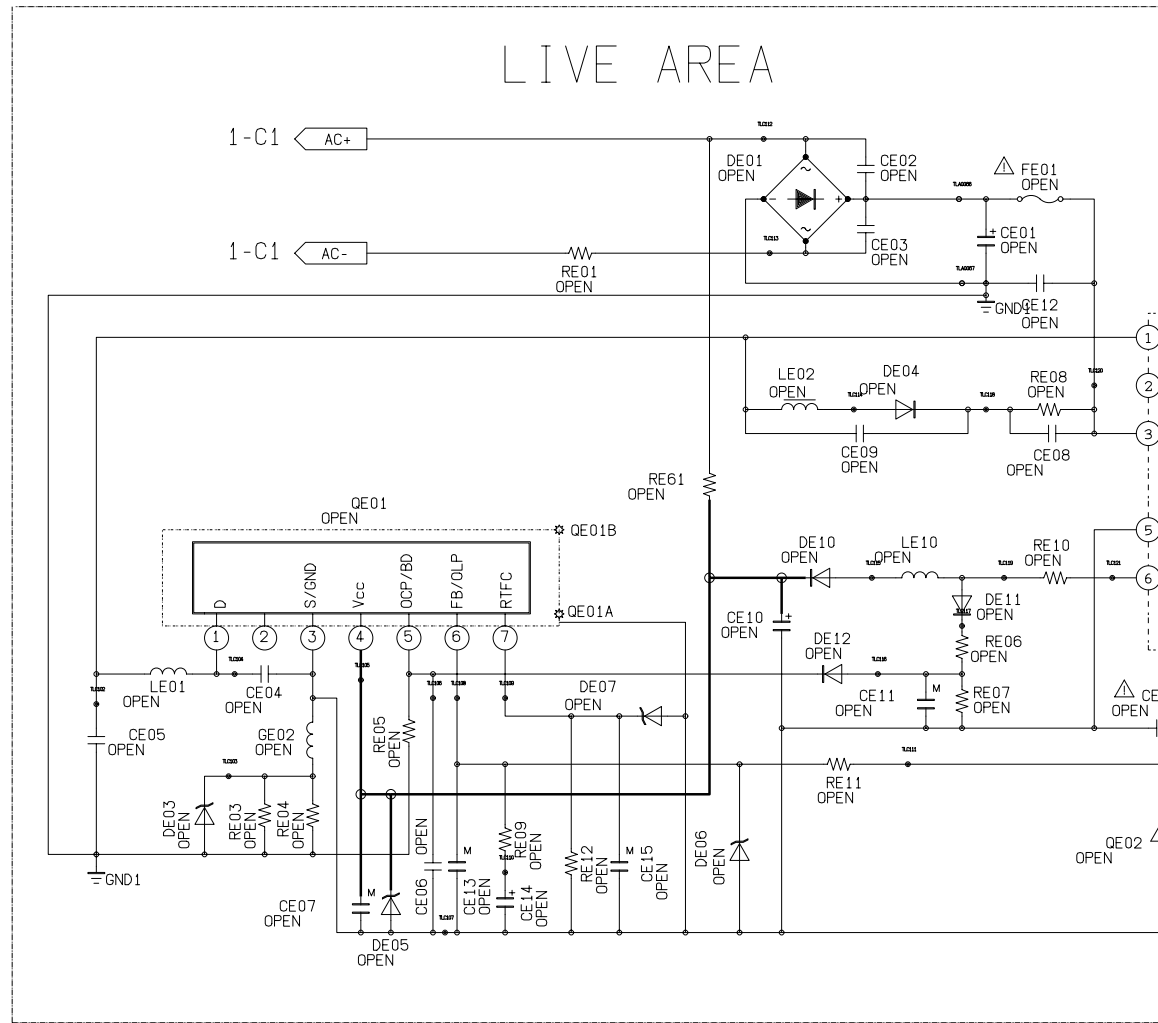
4

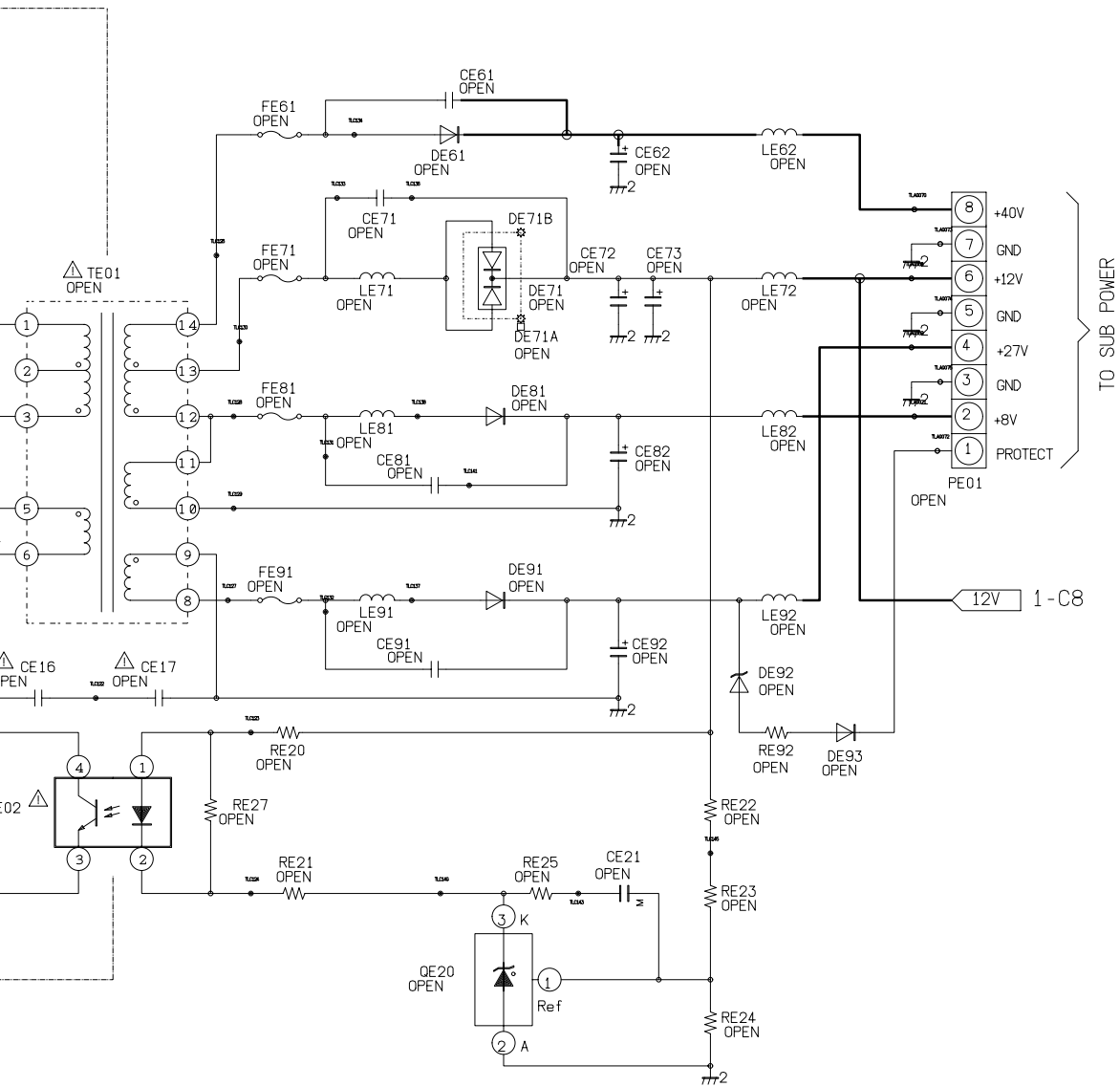




A

B





A

B

51HX93/57HX93/65HX93  
POWER - (2/2)  
[SHEET-2/2]

A

B

C

D

E

F

A

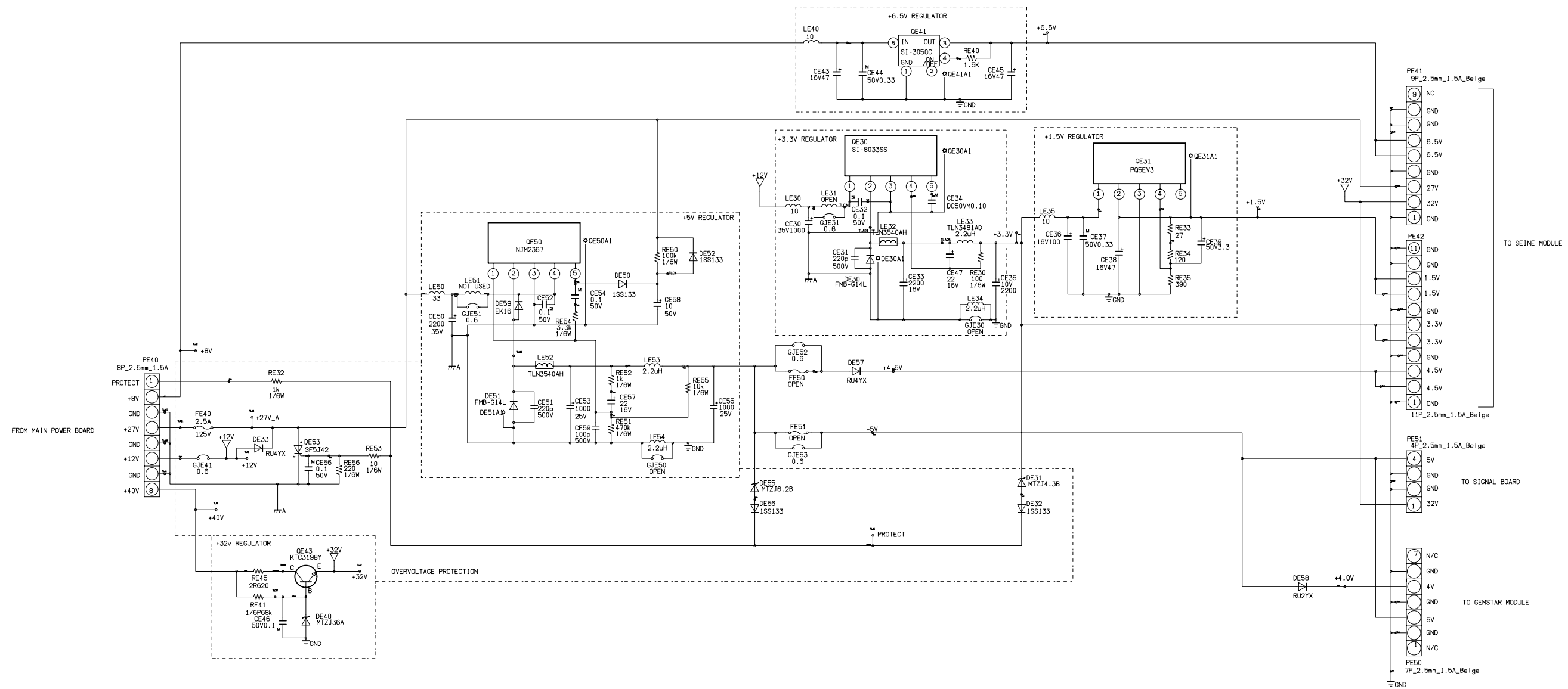
B

C

D

E

F



51HX93/57HX93/65HX93  
SUB-POWER

A

B

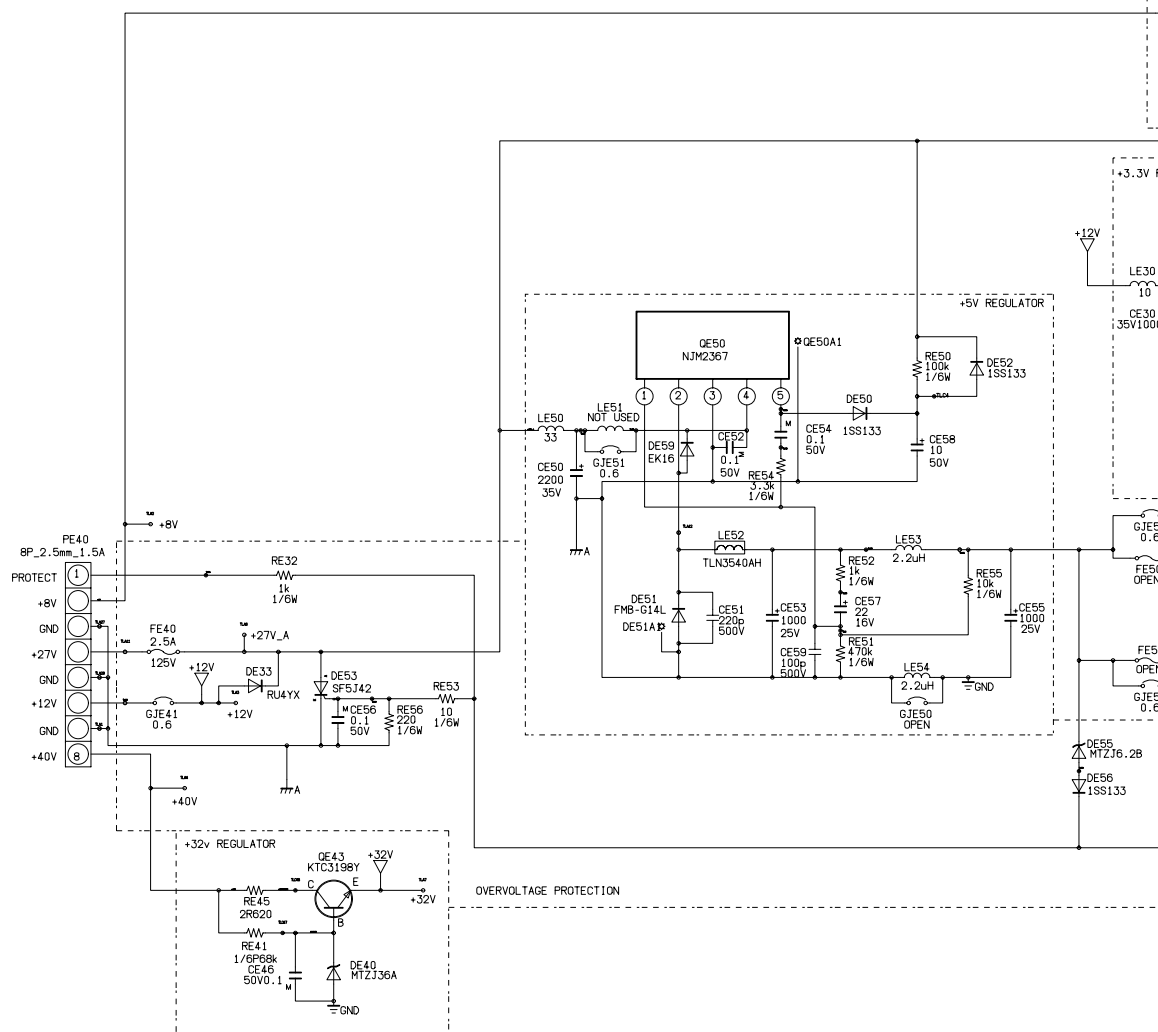
C

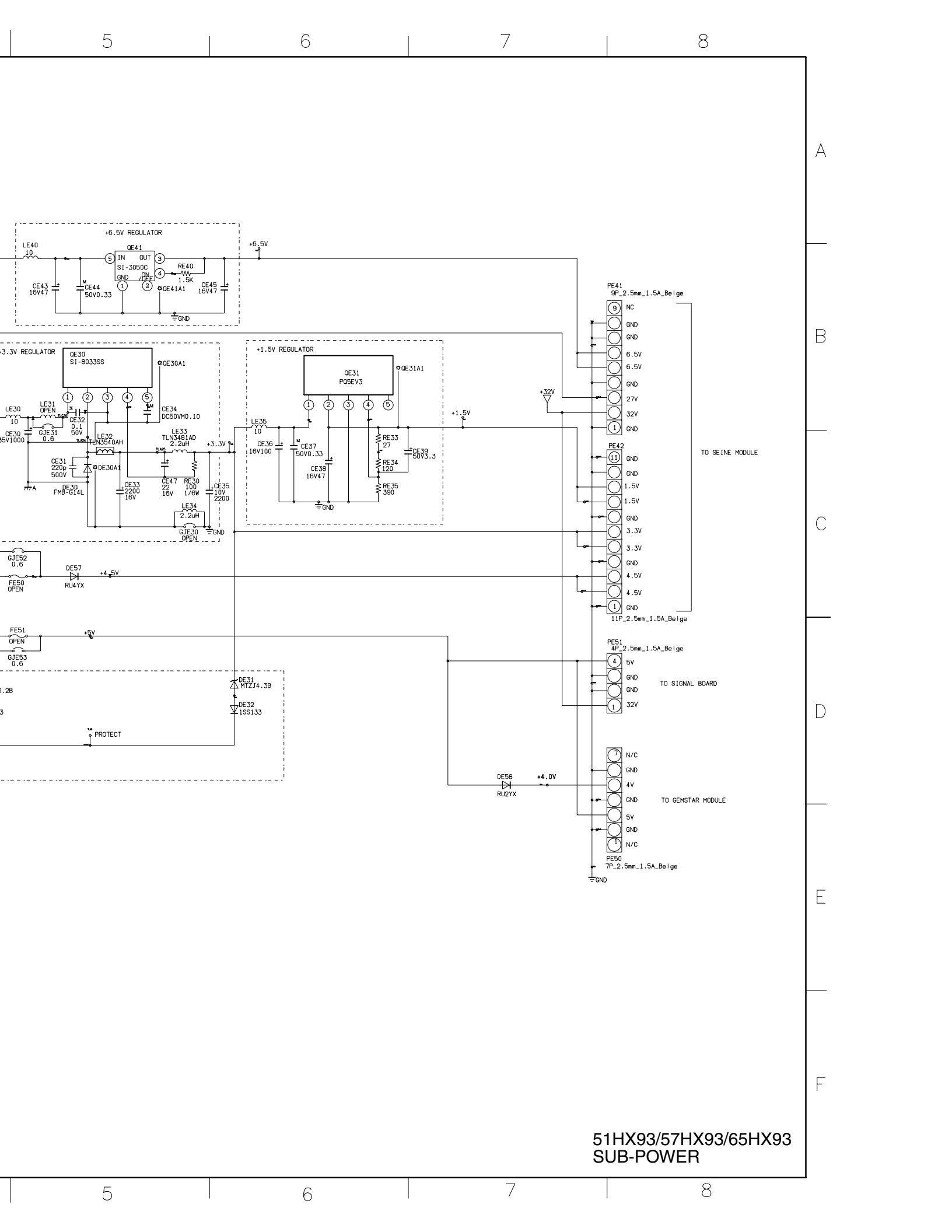
D

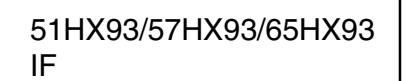
E

F

FROM MAIN POWER BOARD







A

B

C

D

E

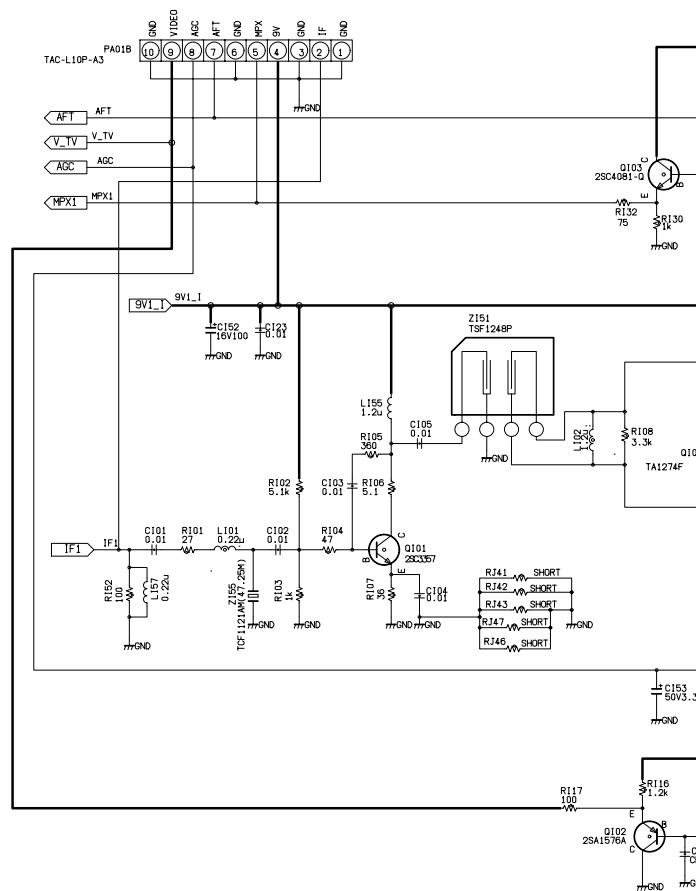
F

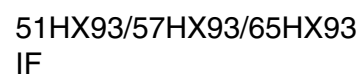
1

2

3

4



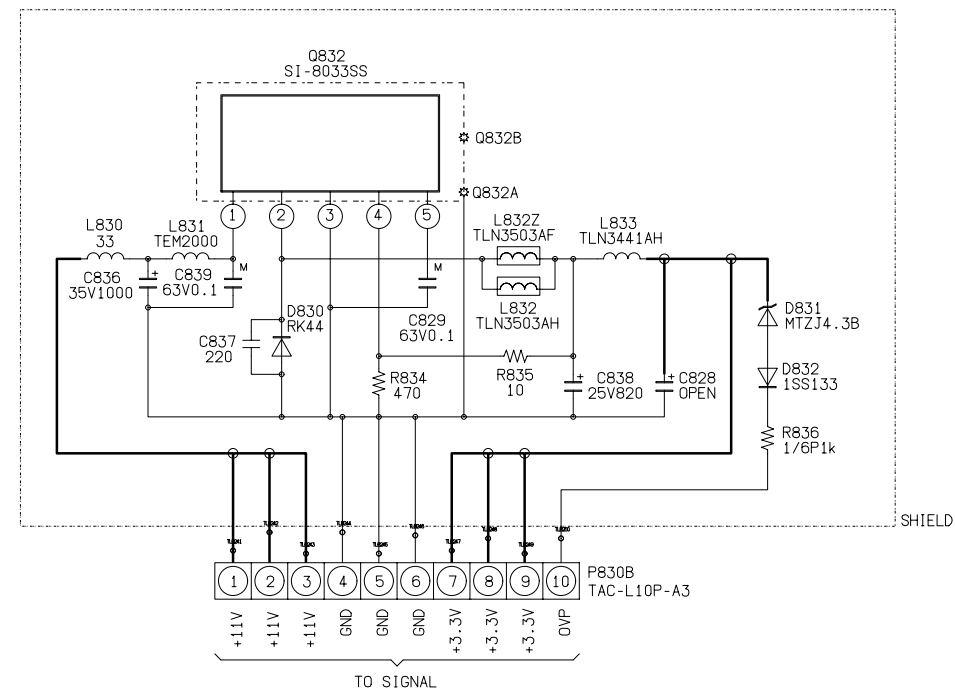


A

A

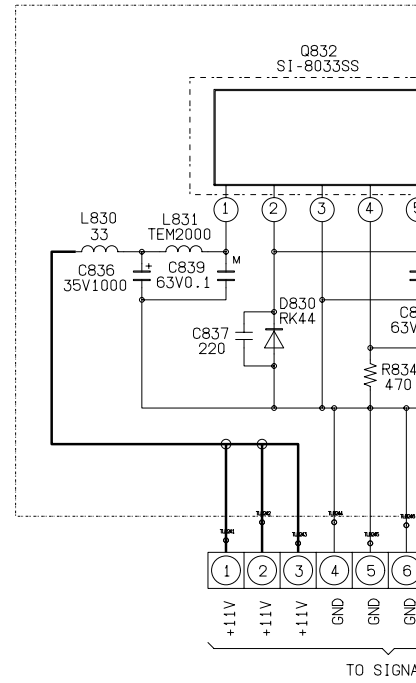
B

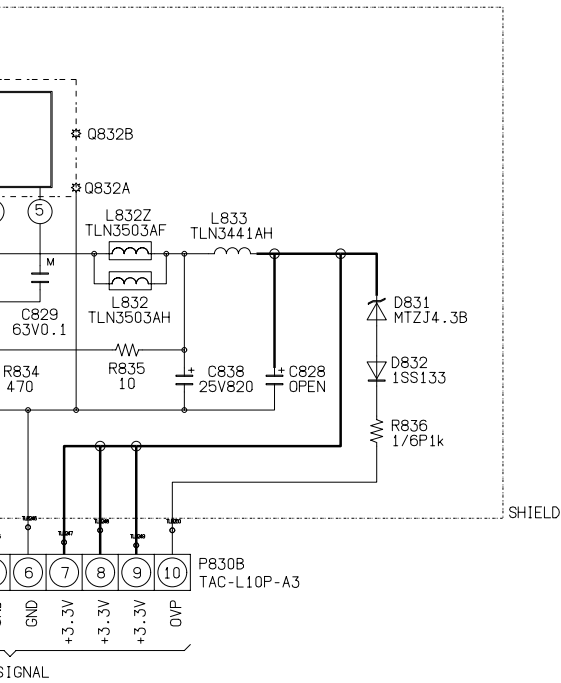
B



A

B





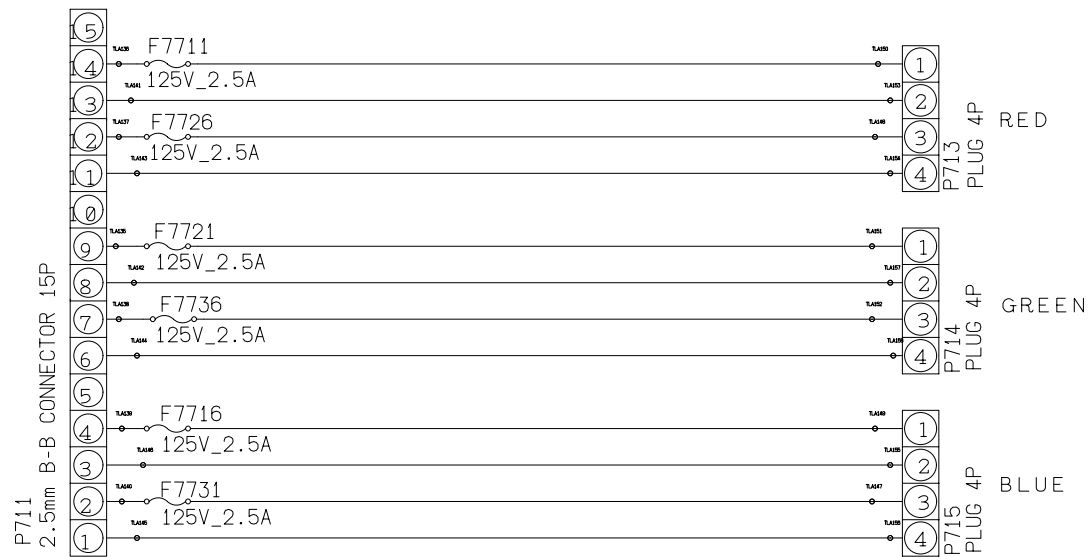
A

B

51HX93/57HX93/65HX93  
DD-CON - (1/2)

A

A

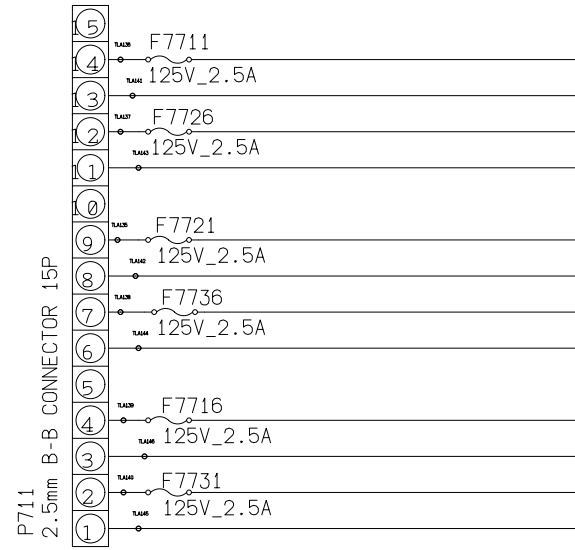


B

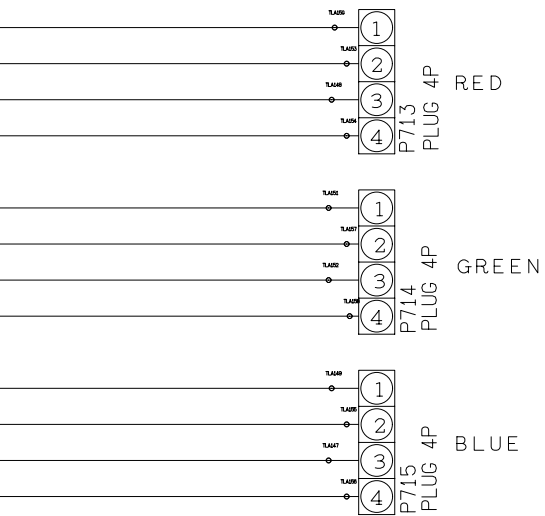
B

A

B



A



B

51HX93/57HX93/65HX93  
CONVER-OUT - (2/2)

A

B

C

D

E

F

A

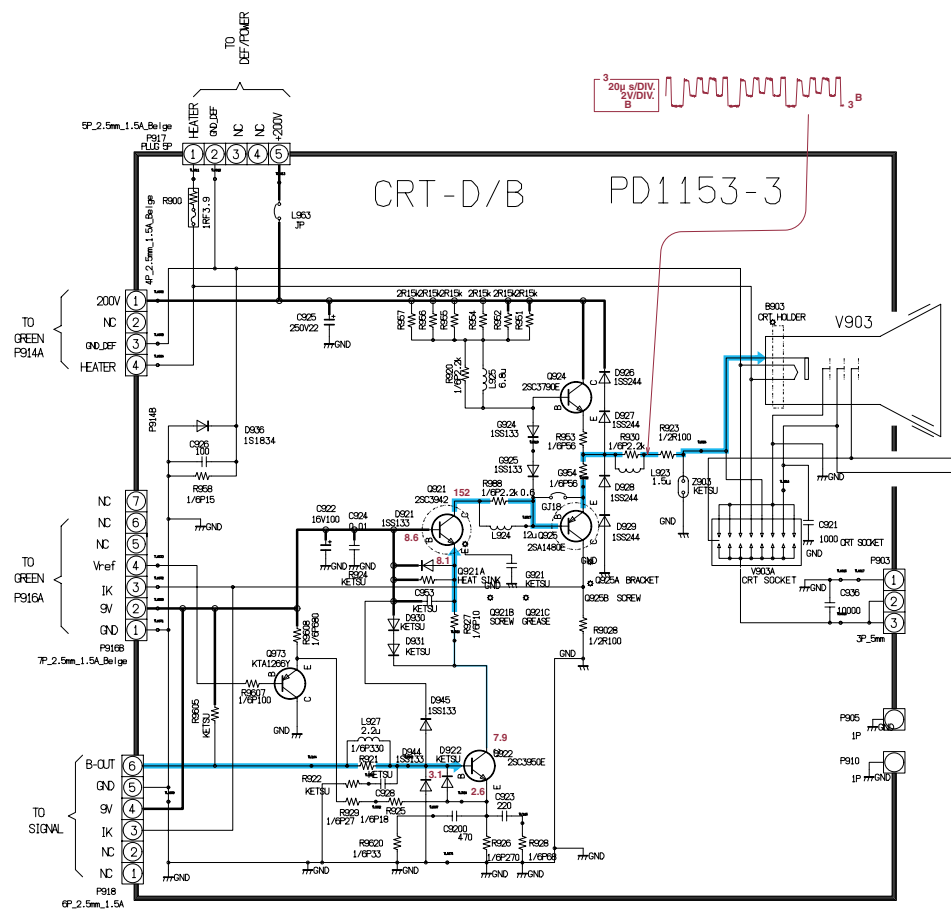
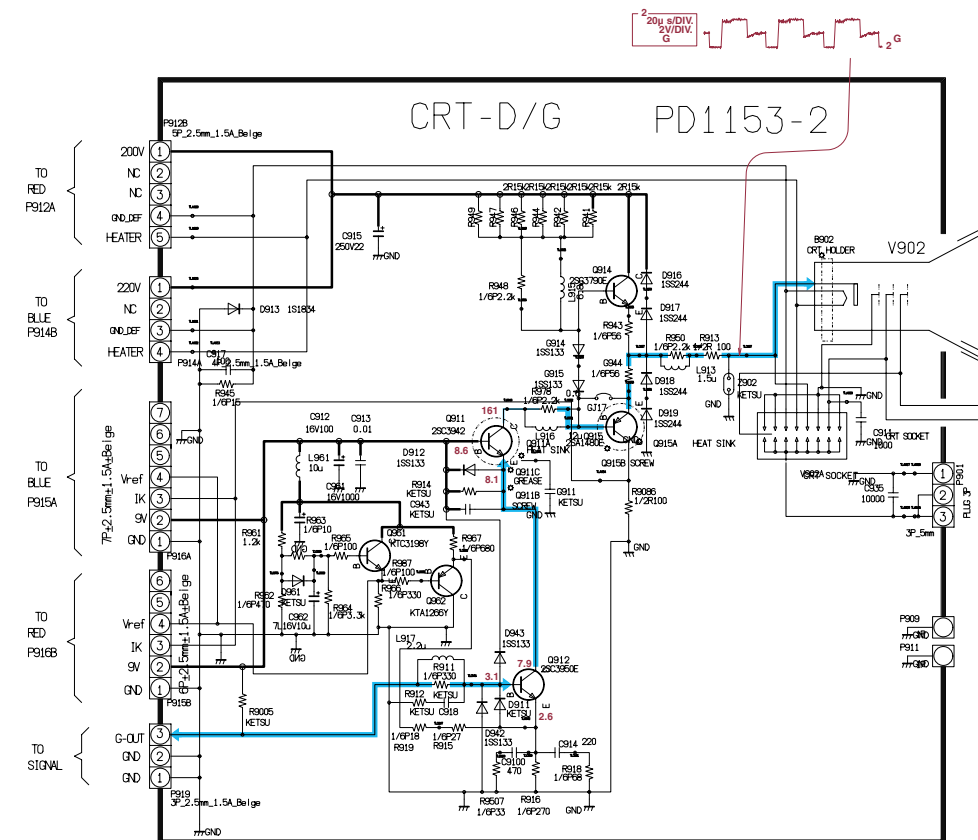
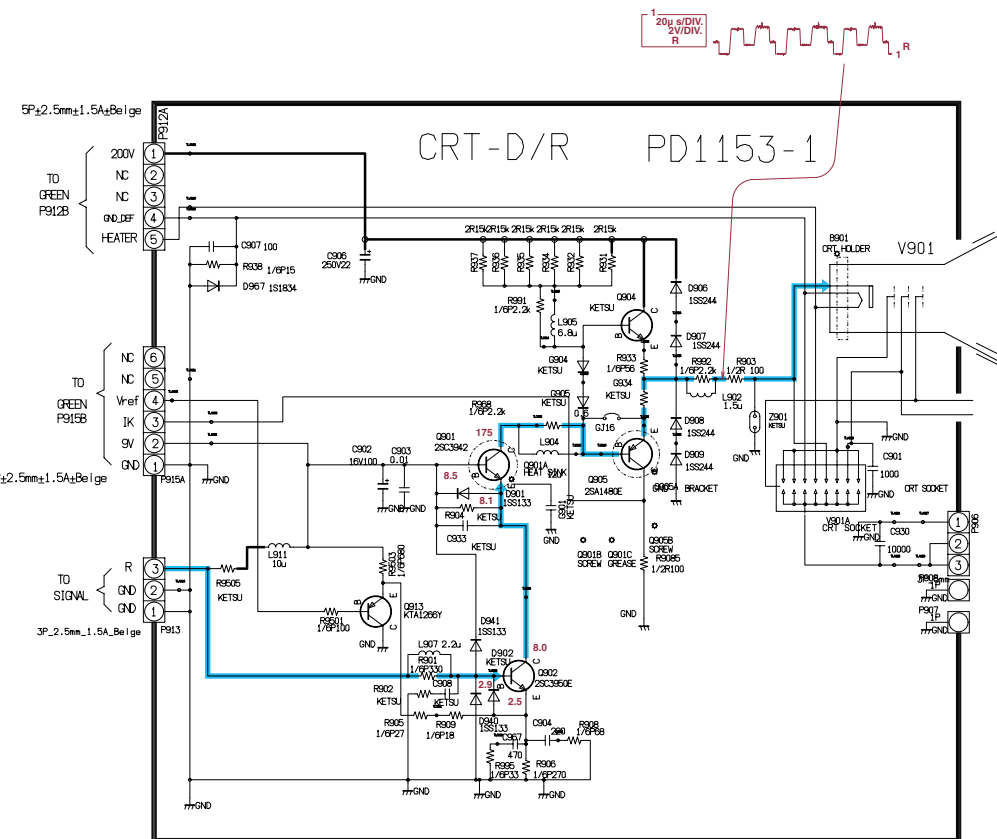
B

C

D

E

F





A

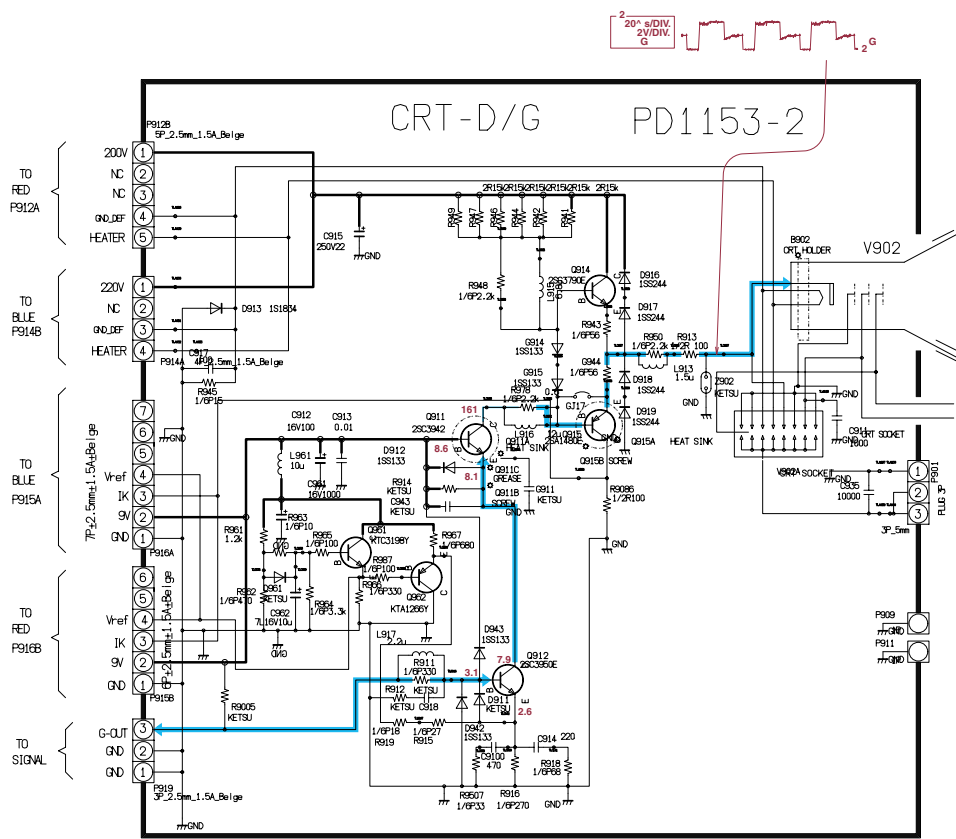
B

C

D

E

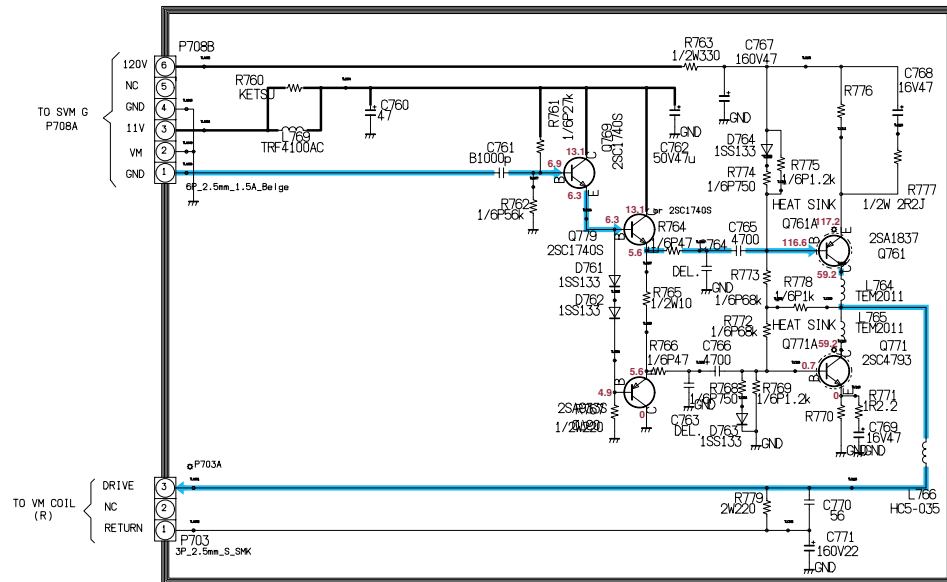
F



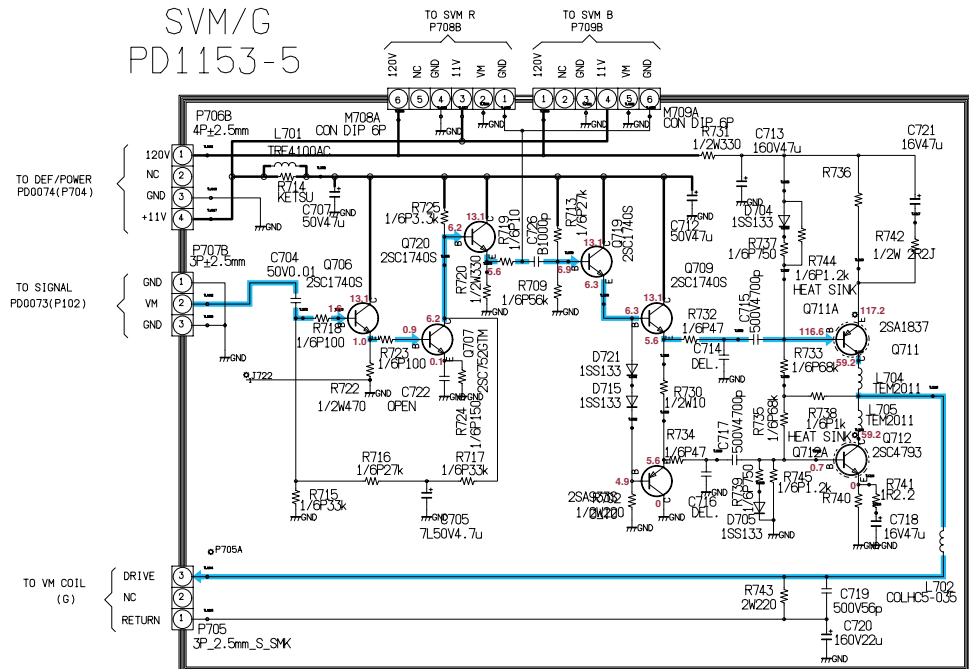
51HX93/57HX93/65HX93  
 CRTSVM - CRT-DRIVE  
 [SHEET-1/2]

[illegible][illegible]

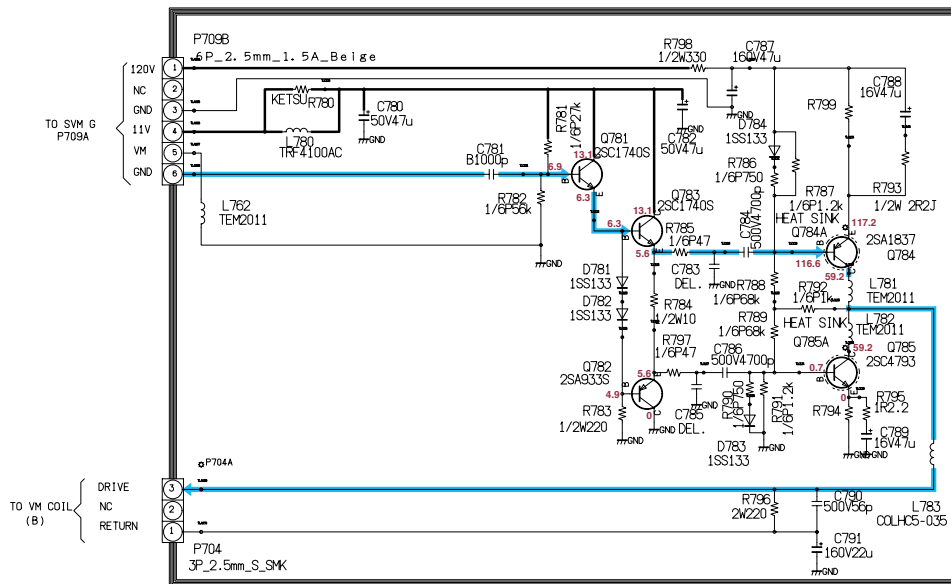
SVM/R  
PD1153-4



SVM/G  
PD1153-5

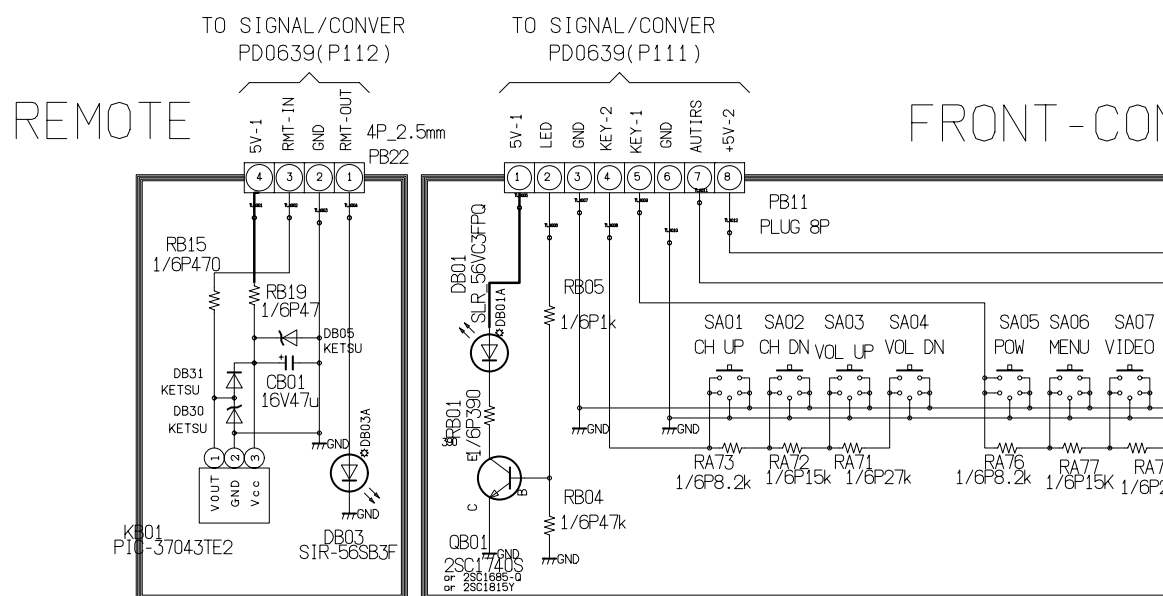


SVM/B  
PD1153-6

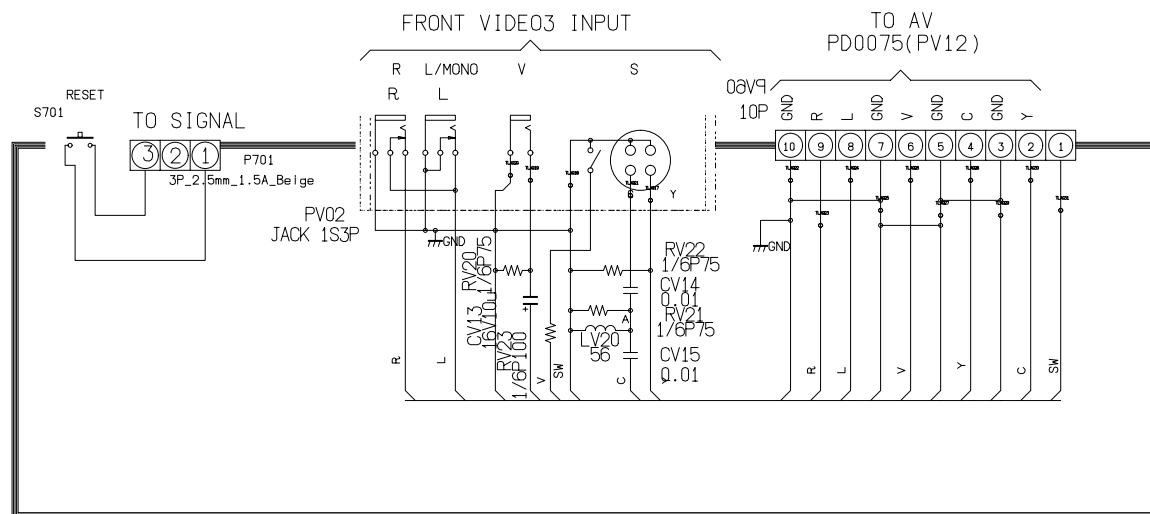




A



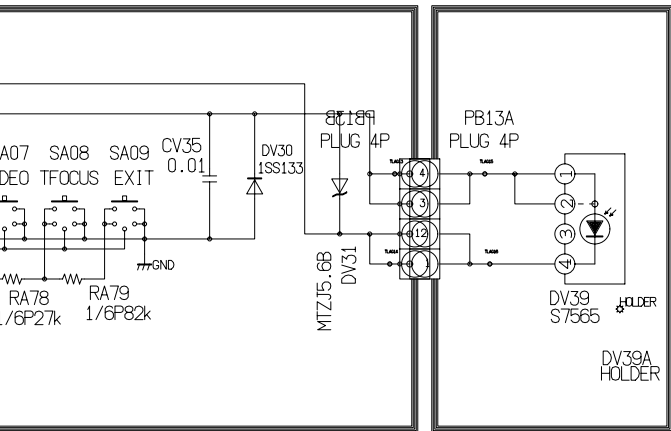
B



FRONT - IN

CONTROL

ALS  
( Ambient Light Sensor )



| MODEL           | 42H82<br>50H82<br>57H82<br>65H82<br>(PD0081) | 42HDX82<br>50HDX82<br>57HDX82<br>65HDX82<br>(PD0221) |
|-----------------|----------------------------------------------|------------------------------------------------------|
| PCB NAME        |                                              |                                                      |
| FRONT - CONTROL | Use                                          |                                                      |
| FRONT - IN      | Use                                          |                                                      |
| REMOTE          | Use                                          |                                                      |
| ALS             | Use                                          |                                                      |

51HX93/57HX93/65HX93  
FRONT



1

2

3

4

A

B

C

D

E

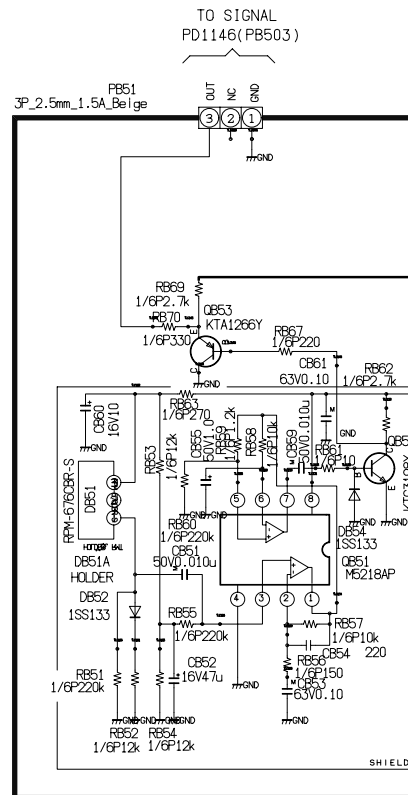
F

1

2

3

4



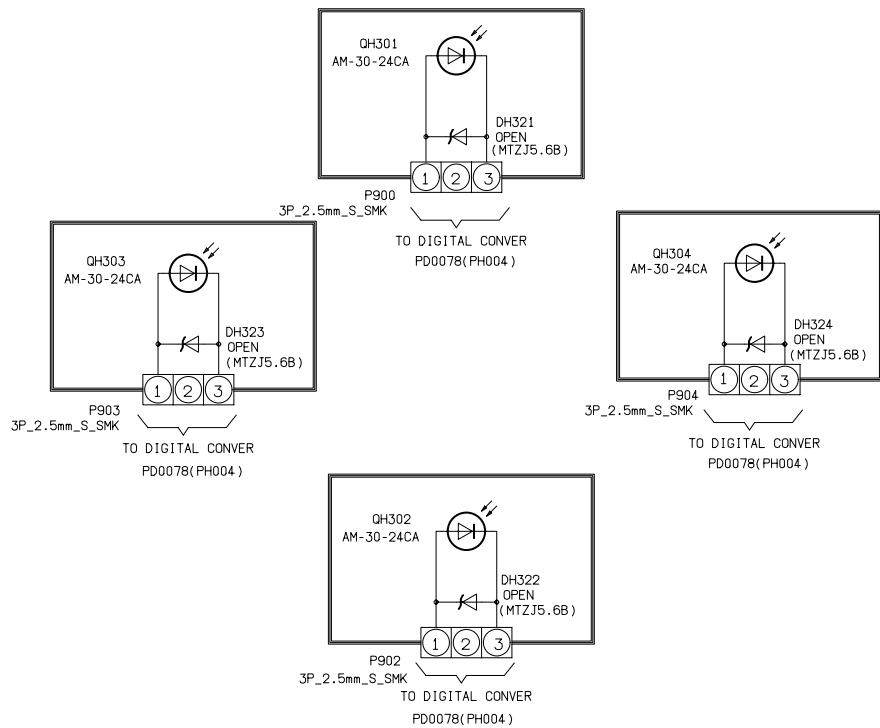


1

2

A

A



B

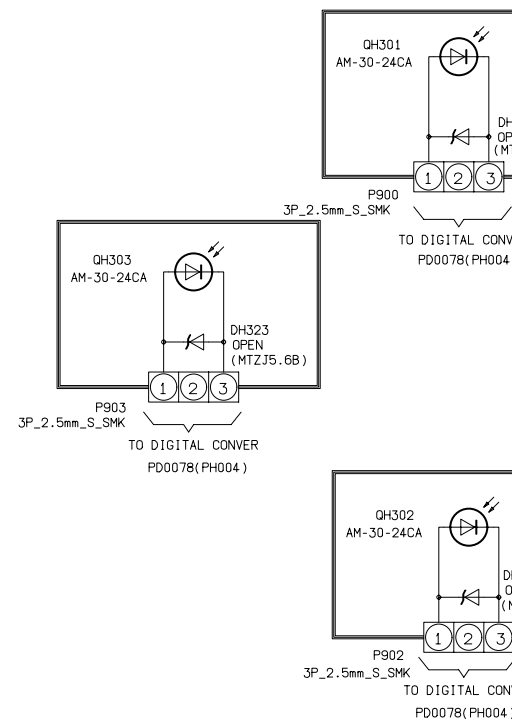
B

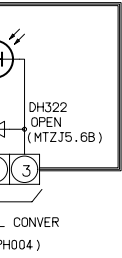
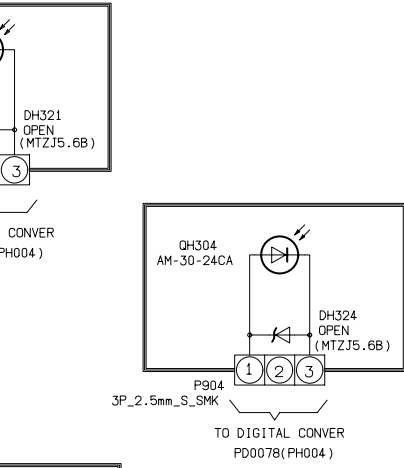
1

2

A

B





51HX93/57HX93/65HX93  
T.FOCUS-SENSOR



A

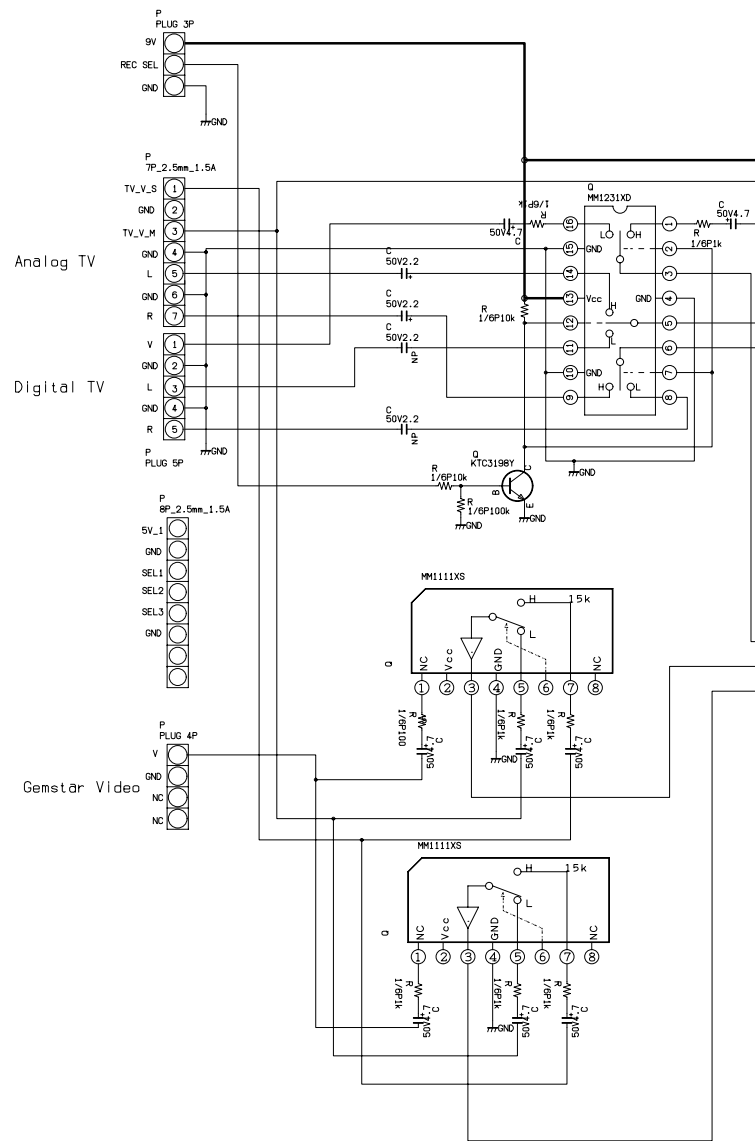
B

C

D

E

F



5

6

7

8

A

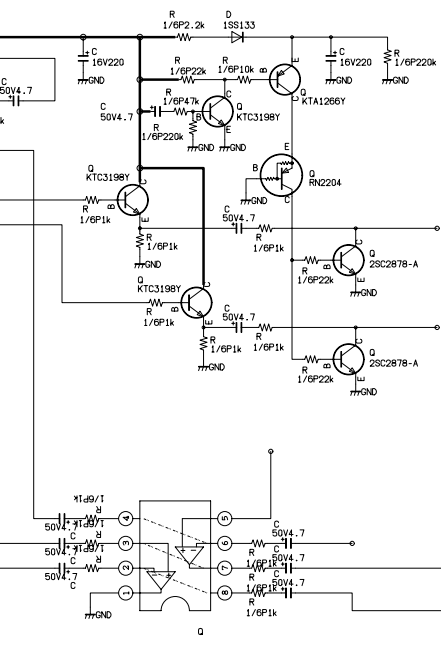
B

C

D

E

F



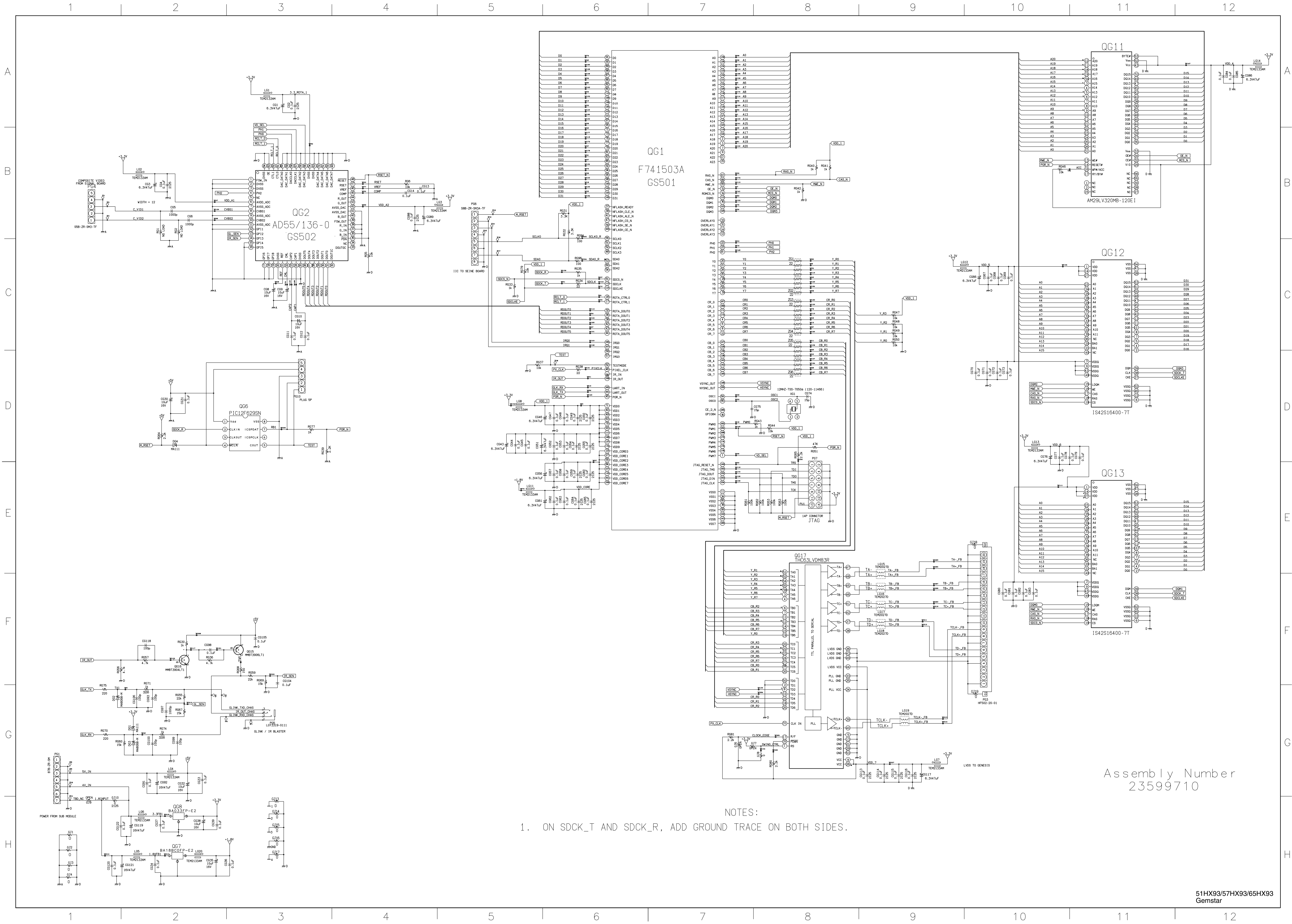
51HX93/57HX93/65HX93  
REC OUT

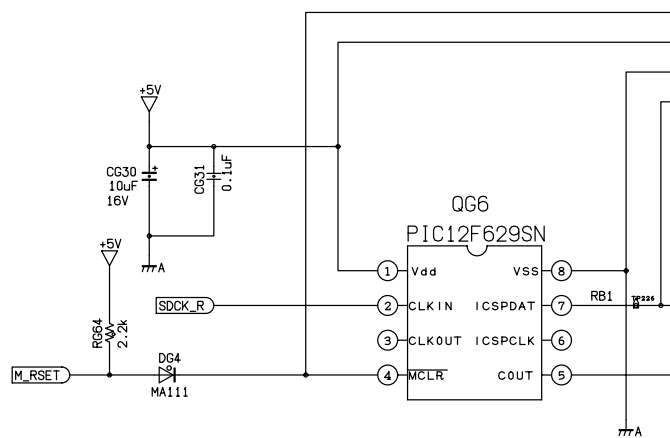
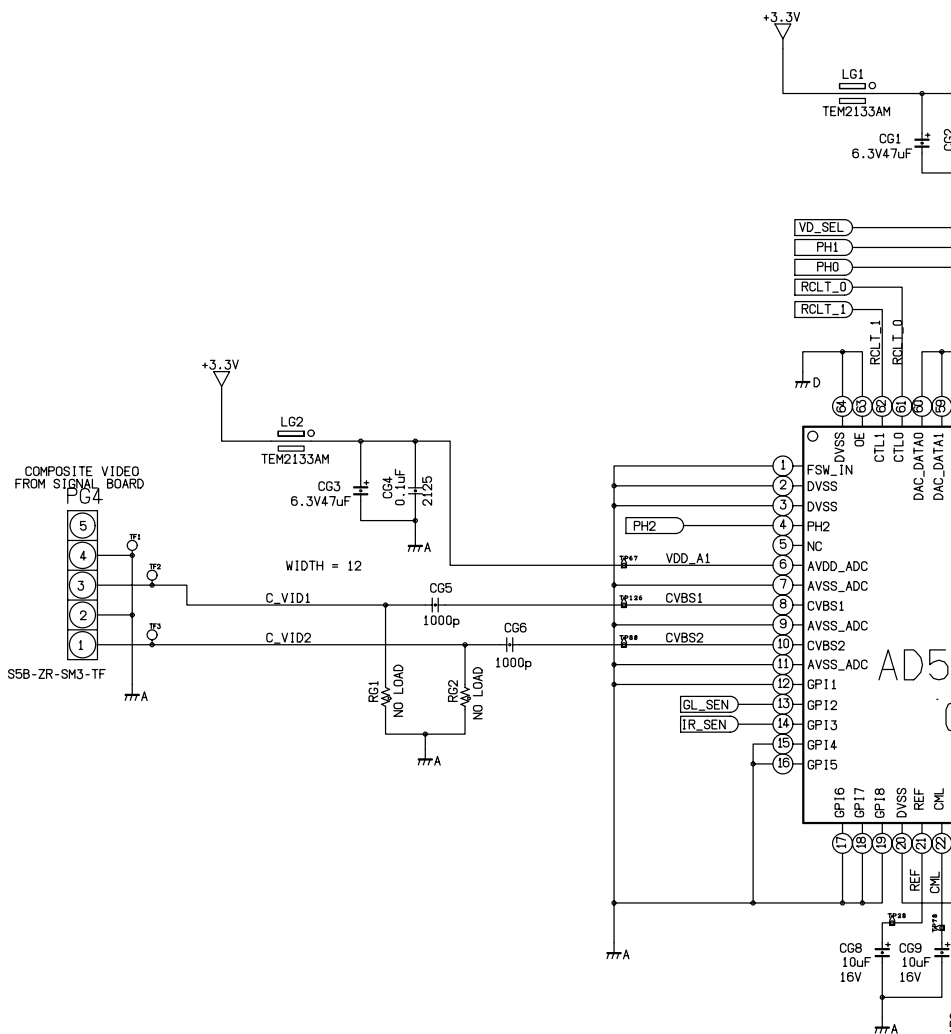
5

6

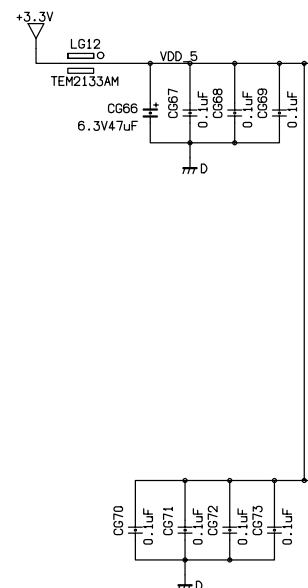
7

8





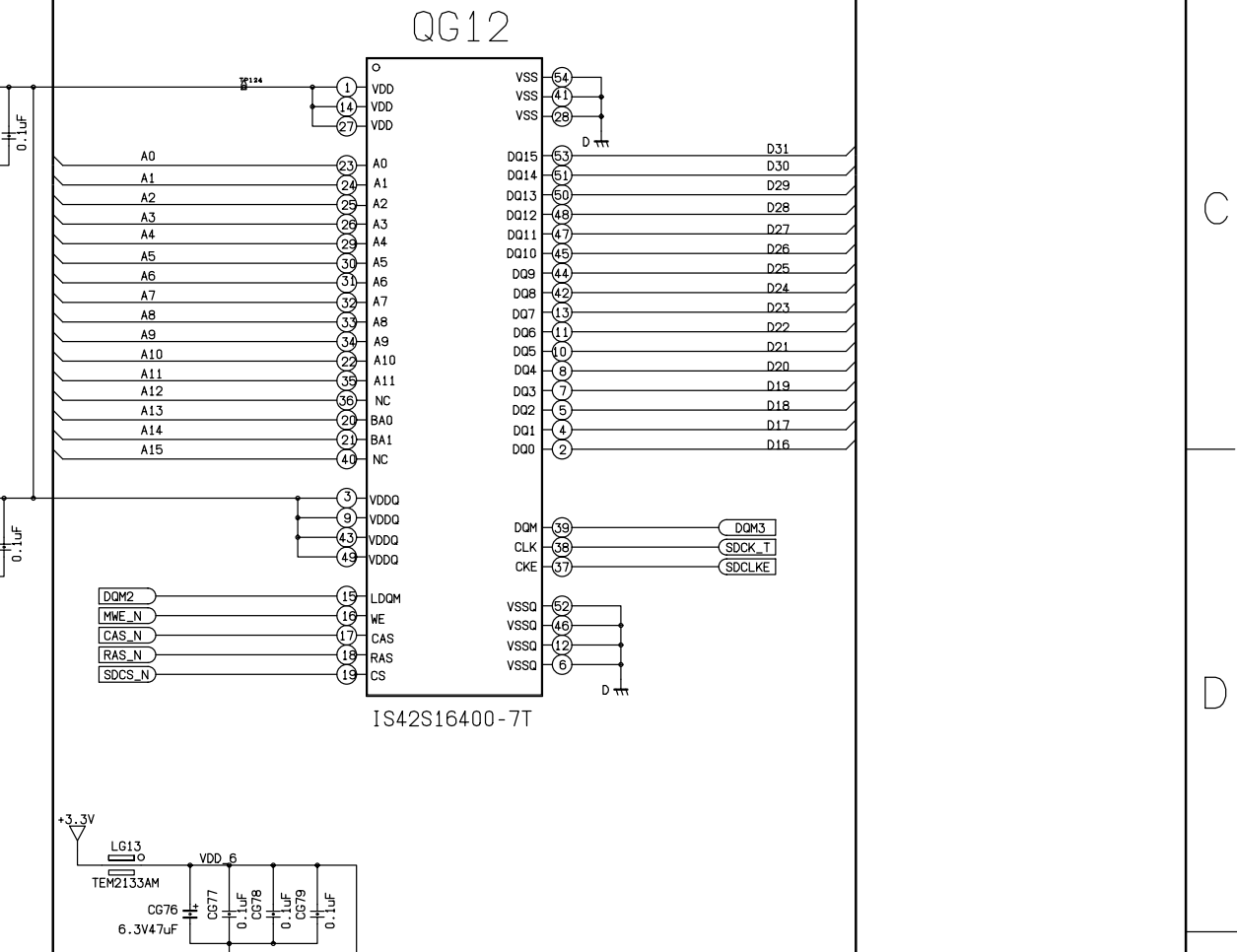
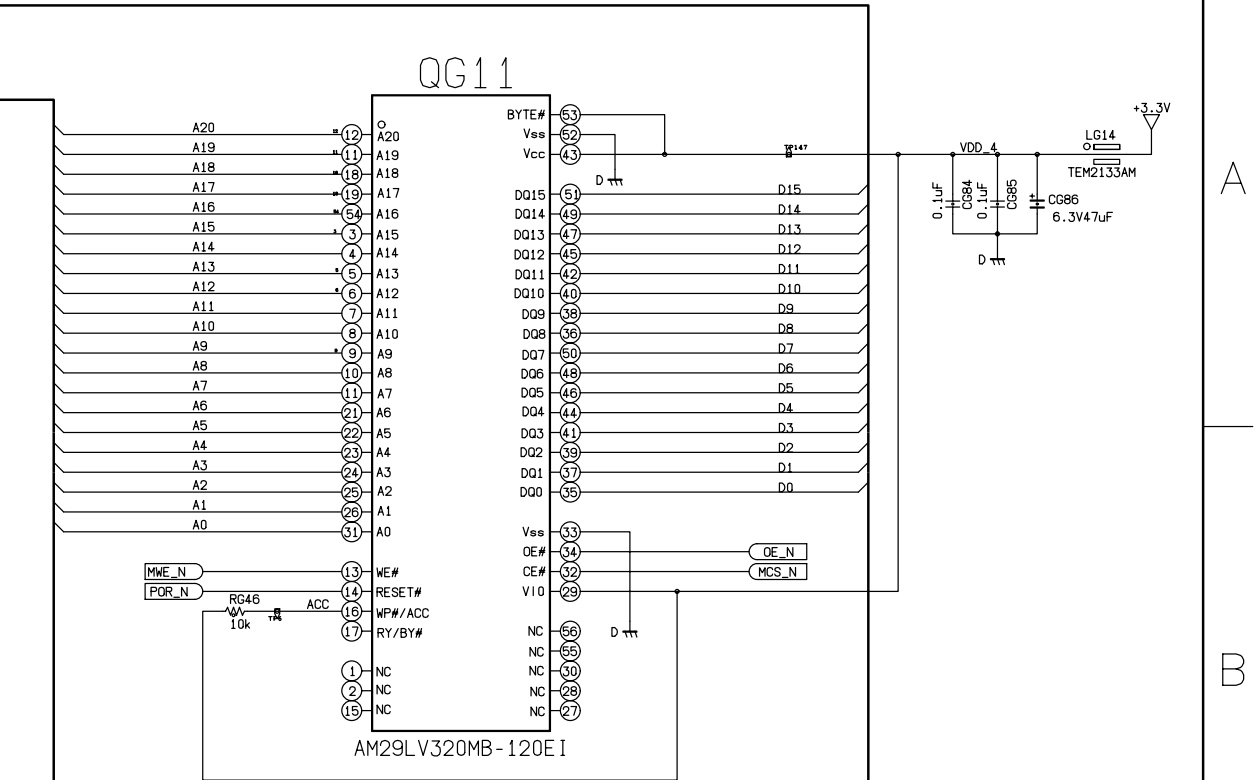


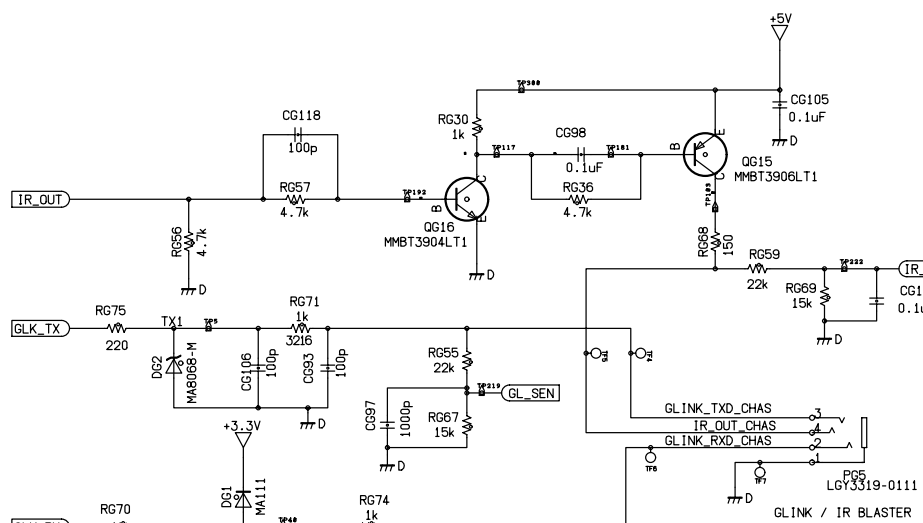
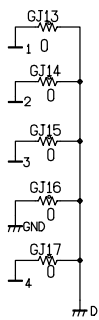
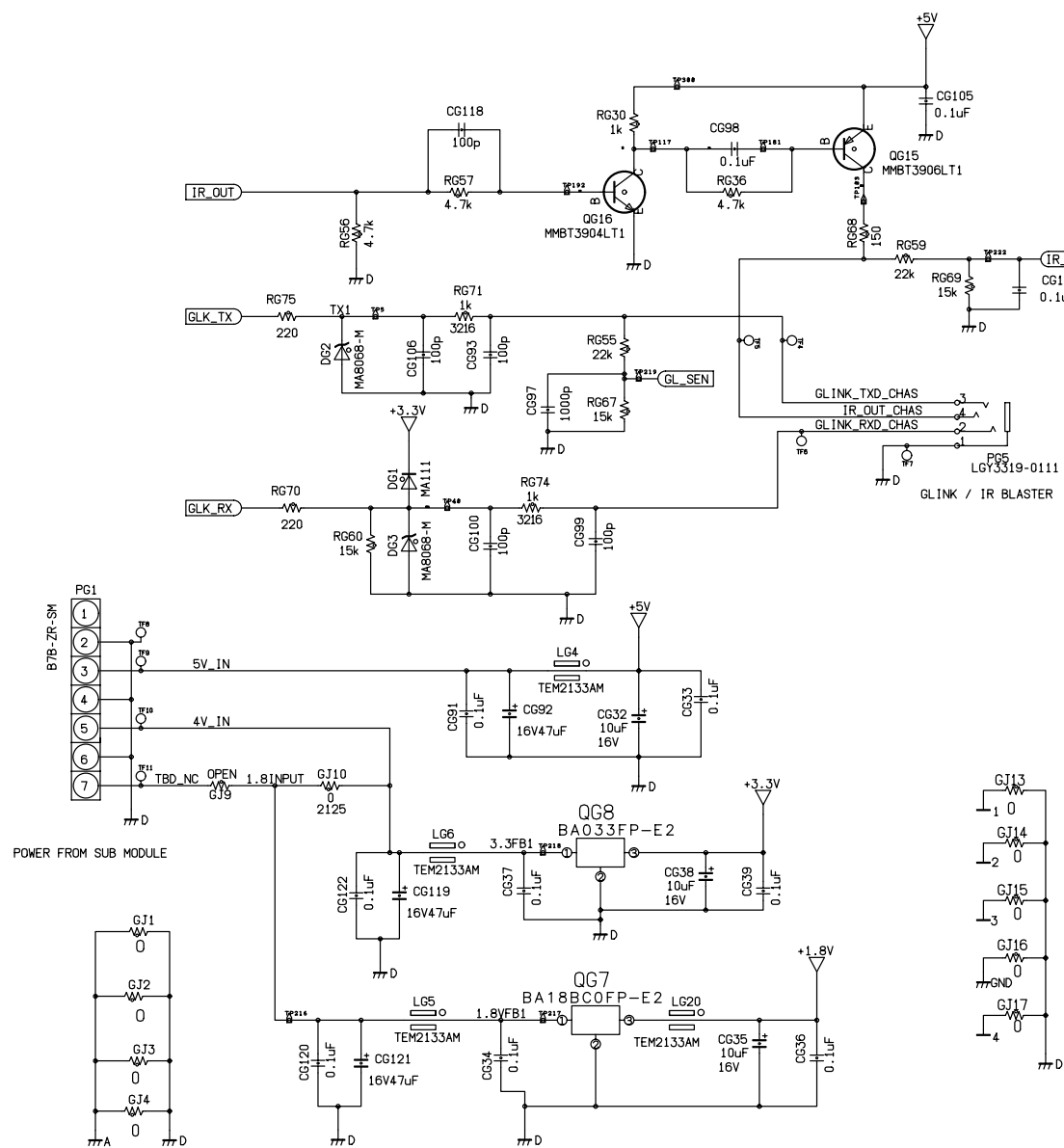


10

11

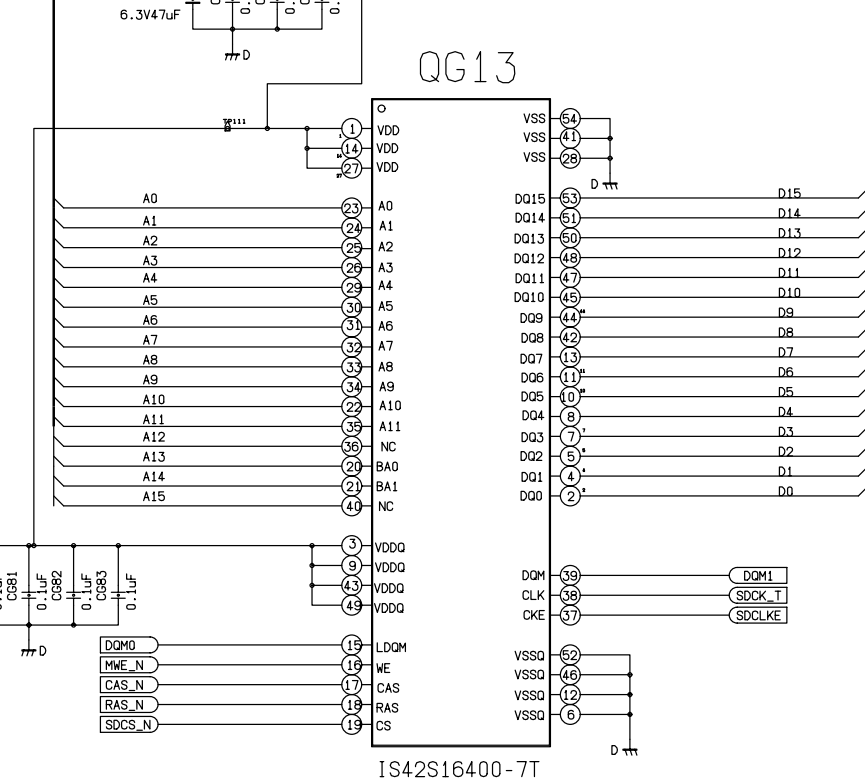
12











Assembly Number  
23599710

51HX93/57HX93/65HX93  
Gemstar